CITY OF CRYSTAL LAKE
AGENDA
CITY COUNCIL
REGULAR MEETING

City of Crystal Lake
100 West Woodstock Street, Crystal Lake, IL
City Council Chambers
August 19, 2025
7:00 p.m.

1. **Call to Order**

2. **Roll Call**

3. **Pledge of Allegiance**

4. **Approval of Minutes – August 5, 2025 Regular Meeting**

5. **Accounts Payable**

6. **Public Presentation**
   The public is invited to make an issue oriented comment on any matter of public concern not otherwise on the agenda. The public comment may be no longer than 5 minutes in duration. Interrogation of the City staff, Mayor or City Council will not be allowed at this time, nor will any comment from the Council. Personal invectives against City staff or elected officials are not permitted.

7. **Mayor's Report**

8. **City Council Reports**

9. **Consent Agenda**
   a. **County Zoning Request - Commercial solar energy facility on 17 acres approximately 1,550 feet east of the intersection of Ballard Road and Illinois Route 47, Unincorporated Woodstock, Illinois**

10. **Board and Commission Appointments and Reappointments – Youth Commission**

11. **Board and Commission Reappointments – Historic Preservation Commission**

12. **County Zoning Request - Commercial solar energy facility on 39 acres south of McHenry County College on the southwest side of US-14, Unincorporated Crystal Lake, Illinois**

13. **Special Event Request – Running Depot and Dirt Circus Fun Run – September 13, 2025**

14. **779 Oak Court - Construction of an addition to the home with Variations to encroach into the street side setback by 16.41 feet, encroach into the side yard setback by 0.9 feet, and exceed the maximum hard-surface coverage by 12.3%**

15. **8900 US Route 14, McHenry County College - Final Planned Unit Development (PUD) Amendment for the construction of an Engagement Hall building**

16. **Bid Award – Police Department Women's Locker Room Expansion and Evidence Storage Relocation**

17. **Bid Award - Sewer Televising and Lining**

18. Capital Improvement Plan Presentation – Discussion Only

19. Council Inquiries and Requests

20. Adjourn to Executive Session for the purpose of discussing matters of pending and probable litigation, the sale, purchase or lease of real property, collective bargaining and personnel

21. Reconvene to Regular Session

22. Adjourn

If special assistance is needed in order to participate in a City of Crystal Lake public meeting, please contact Melanie Gray, Executive Assistant, at 815-459-2020, at least 24 hours prior to the meeting, if possible, to make arrangements.

Agenda Item No: 9a

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: COUNTY ZONING REQUEST

Commercial solar energy facility on 17 acres approximately 1,550 feet east of the intersection of Ballard Road and Illinois Route 47, Unincorporated Woodstock, Illinois

Recommendation: No action

Staff Contact: Kathryn Cowlin, Director of Community Development
Elizabeth Maxwell, City Planner

Background:

- The City received this County Zoning requests because it is within the City's mile-and-a-half planning jurisdiction. The City's closest boundary is approximately ¼-mile south.
- The subject property is approximately 27 acres. It is zoned "A-1" Agriculture District and used for agriculture.
- The Village of Lakewood is to the north and east zoned "AG" and "A-1" Agricultural zoning to the south and west.
- The County's 2030 Land Use Plan identifies the subject property as Estate.
- The subject property has no land use designation on the Crystal Lake 2030 Comprehensive Land Use Plan map.

Request:

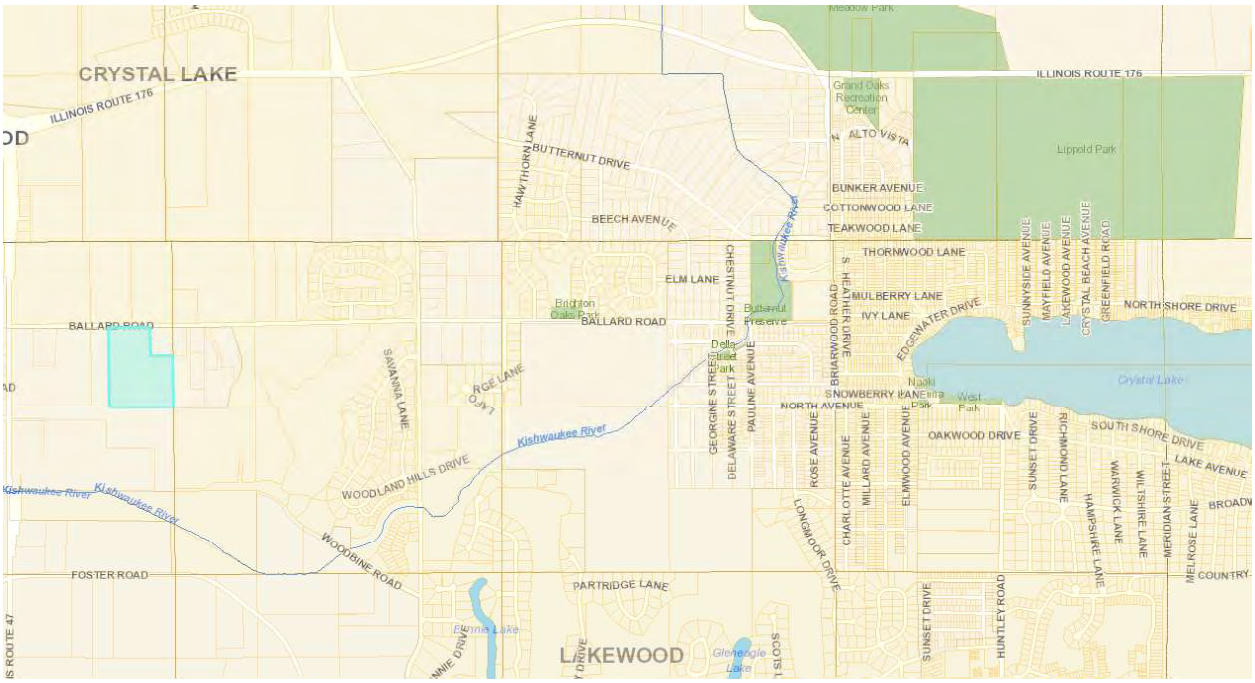
- The property is not within the Crystal Lake Watershed, and staff does not have any concerns with this request.
- The petitioners are requesting a 17-acre commercial solar energy facility, having a 5 megawatt production capacity, on the 75-acre subject property. The facility will also include up to ten 20-foot temperature-controlled storage containers containing lithium-ion battery packs charged by excess solar capacity.
- The County requires a Conditional Use Permit for Solar Farms in the "A-1" Agriculture, "O" Office/Research, "I-1" Light Industrial and "I-2" Heavy Industrial zoning districts. The City of

Crystal Lake requires a Special Use Permit in the F Farming, M-L Limited and M Manufacturing zoning districts.

- There is an ADID wetland on the site.
- There are two main areas of trees that will be cleared.
- Height: The solar array will be no more than 15 feet in height at full tilt.
- Safety/Security: There will be a 7-foot-high fence with locked gates.
- Landscaping: The site will be planted with "low-profile" native prairie species. There will also be screening landscape of native shrubs and evergreen trees where it will be within 500 feet of a residence.
- Per the County's UDO's Use Standards for Commercial Solar Energy Facilities, decommissioning plans shall require removal of all solar panels, electrical equipment, poles, piles, foundations, and conduits (above and below ground). Access roads, fencing, groundcover, and landscaping may remain only by agreement of property owner.
- The City of Crystal Lake requires a Special Use Permit for solar farms in the F – Farming, M-L Manufacturing Limited and M – Manufacturing zoning districts, subject to the following criteria:
    - The entire project site shall be surrounded with landscape and a fabric-wrapped chain link fence, which would screen the property from any roadways or public driveways.
    - The grounds in and around the panels shall be repurposed for wildflowers or agriculture. A landscape plan is required.
    - One ten-foot-wide paved drive shall provide access around the entire site.

Votes Required to Pass: A simple majority.

PIQ Map
11305 Ballard Road





IN THE MATTER OF THE APPLICATION OF)
SKYSTONE SOLAR, LLC, *APPLICANT*)
FOR AN AMENDMENT OF THE UNIFIED DEVELOPMENT) LEGAL NOTICE OF PUBLIC HEARING
ORDINANCE OF McHENRY COUNTY, ILLINOIS FOR A) Z25-0064
CONDITIONAL USE)

Notice is hereby given in compliance with the McHenry County Unified Development Ordinance, that a public hearing will be held before the **McHenry County Zoning Board of Appeals,** in connection with this Ordinance, which would result in a ***CONDITIONAL USE*** for the following described real estate:

THE EAST HALF OF GOVERNMENT LOT 1 IN THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPTING THEREFROM THE NORTH 484.0 FEET OF THE EAST 360.0 FEET THEREOF, AND ALSO EXCEPTING THEREFROM THE WEST 280.5 FEET THEREOF, IN MCHENRY COUNTY, ILLINOIS.
PIN: 18-04-200-005

The subject property is located on the south side of Ballard Road approximately one thousand five hundred fifty (1,550) feet east of the intersection of Ballard Road and Illinois Route 47***, with a common address of 11305 Ballard Road, Woodstock, in Grafton Township, Illinois.***

The subject property is presently zoned ***"A-1" Agriculture District*** and consists of approximately **27 acres** with ***the Village of Lakewood to the North and Southeast and "A-1" Agriculture District zoning to the East, South and West.***

The Applicant is requesting **a CONDITIONAL USE** ***of the subject property to allow for a commercial solar energy facility.***

The Applicant, Skystone Solar, LLC is wholly owned by Cultivate Power, LLC. The officers of Cultivate Power, LLC and Skystone Solar, LLC are: Noah Hyte and Brian Matthay. Mr. Hyte can be reached at 2412 Pier Avenue, Santa Monica, California. Mr. Matthay can be reached at 2819 Buchanan Street, San Francisco, California. The property owners, Ansar A. Mohammed and Elyas Mohammed, can be reached at 11305 Ballard Road, Woodstock, Illinois.

A hearing on this Petition will be held on the 27th day of August 2025 at 1:30 P.M. in the County Board conference room at the McHenry County Government Center Administration Building 667 Ware Rd, Woodstock, Illinois at which time and place any person desiring to be heard may be present. The McHenry County Government Center Mailing address is 2200 N. Seminary Avenue, Woodstock, Illinois 60098.

DATED THIS 5TH DAY OF AUGUST 2025.

By: Linnea Kooistra, Chair
McHenry County Zoning Board of Appeals
2200 N. Seminary Avenue
Woodstock, IL 60098

Petitions for all Zoning Board of Appeals hearings can be accessed at the following link: www.mchenrycountyil.gov/county-government/new-meeting-portal and choosing the "Agenda" link for the specific meeting date.

Live audio streams of all Zoning Board of Appeals hearings can be accessed at the following link: www.mchenrycountyil.gov/county-government/new-meeting-portal and choosing the "Video" link for the specific meeting date.

SKYSTONE SOLAR, LLC
3.35 MW COMMUNITY SOLAR FACILITY

Prepared by: Skystone Solar, LLC

McHenry County Conditional Use Permit Application June 25, 2025

Introduction

Skystone Solar, LLC is a limited liability company owned by Cultivate Power, LLC. Skystone Solar, LLC, the Applicant, has prepared this application for a 3.35 megawatt (MW) solar energy and storage facility in McHenry County, Illinois. This 3.35 MW facility may be referred to herein as "Skystone Solar" or "the project."

We submit this request on behalf of the property owner, Ansar and Elyas Mohammed. Cultivate Power, LLC, or another qualified solar farm owner and operator, will provide the financial backing and technical expertise to ensure the success of Skystone Solar, LLC. Cultivate Power is a dedicated distributed generation solar developer focused on Illinois. Our team has a combined 100 years of experience developing and financing solar projects and we are excited to bring solar to McHenry County.

We are excited by the opportunity to provide McHenry County with a long-term source of clean, sustainable energy. Beyond that, the project will generate income for our landowner, create an opportunity for ComEd customers to subscribe to power at or below market rates, and increase the local tax base.

This application was prepared according to the requirements detailed in **Title 16: Unified Development Ordinance, Chapter 16.56.030, Subsection PP and Chapter 16.20.40, Subsection E, Approval Standards for Conditional Use Permits of McHenry County Illinois, Code of Ordinances.** Skystone Solar, LLC respectfully submits information, exhibits, and materials which are incorporated into and made part of the Application below in order to comply with the McHenry County conditional use permit Standards for Issuance.

We thank you for your consideration and look forward to working together to bring the benefits of a solar energy facility to the area. Please let me know if I can provide additional information or assistance.
Sincerely,

Paul Bottum
847-312-3712
Bottum@Cultivate-Power.com
Cultivate Power

Project Overview

Project Name: Skystone Solar, LLC
Nearest Cross Streets: Illinois Route 47 and Ballard Rd.
Township: Grafton
Size: 3.35MWac
# of panels = 8300
Acreage: 26+ acre parcel, 17 acre project area
Zoning District: Agricultural
Landowner: Ansar and Elyas Mohammed

Skystone Solar, LLC will contain rows of Photovoltaic (PV) cell modules mounted on posts set in the ground. The project currently anticipates a battery storage system will also be incorporated into Skystone Solar, LLC. The project will be a self-contained, low-impact development requiring little to no local municipal services.

Skystone Solar will bring significant economic and energy benefits to McHenry County and is not projected to have an adverse impact on public health, safety or general welfare, nor will it affect the comfort and convenience of the public or of the immediate neighborhood.

Skystone Solar, LLC was determined as an ideal location for solar farm development for a variety of factors including:

- → Proximity to relevant electrical and road infrastructure
- → Likelihood of wetlands and other protected landforms or species
- → Slope of land and direction of this slope
- → Interest from our landowner
- → Current zoning district and surrounding uses

The project will have minimal impact on surrounding properties, which are predominantly zoned A1 Agricultural and I1 Light Industrial uses.

The anticipated power output of the project is approximately 5.4 million kilo-watt hours (kWh) annually, enough to power approximately 750 single-family homes.[1] Skystone Solar, LLC expects to invest an estimated $5,000,000 in the project, create 20 local jobs during construction[2] and significantly increased property tax revenue over the lifetime of the project. Cultivate Power is a proud partner of each community that we work with, and we look forward to a continued relationship with McHenry County.

[1] https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator
[2] https://www.seia.org/research-resources/national-solar-jobs-census-2020

Commercial Solar Ordinance – Title 16: Unified Development Ordinance, Chapter 16.56.030, Subsection PP

PP. *Commercial solar energy facility.* Conditional use permits for a commercial solar energy facility shall have no time limit, unless the use is abandoned as specified in subsection PP.4. below (Commercial solar energy facility: Abandonment), or the permit is revoked in accordance with § 16.20.040 I. (Revocation of Conditional Use Permits).

1. ***Application.***
   a. A threatened and endangered species consultation **(EcoCAT)** from the Illinois Department of Natural Resources is required at the time of conditional use permit application for any site that is five (5) acres or greater in size and currently in agricultural use or undeveloped.

      The project has completed an EcoCAT review and the consultation has been terminated. The project will submit an environmental review with the USFWS.

   b. A **site plan** shall be provided showing all improvements, including structures, fencing, power lines (above and below ground), lighting, and landscaping, at a detail sufficient to understand the location, height, appearance, and area.

      See Exhibit F.

   c. All other application submittal requirements outlined in the *Planning and Development Department Zoning Application Packet* as published on the McHenry County Website.

      The project has submitted, by way of Exhibits, all of the requirements outlined in the Planning and Development Zoning Application Packet requirements.

2. ***Site design.***
   a. Solar panels, structures, and electrical equipment, excluding fences and power lines for interconnection, shall be erected no less than fifty (50) feet from any lot line and no less than one hundred fifty (150) feet from any residence, other than a residence on the same ownership parcel.

      The proposed project will comply with the setback requirements. 50 feet from any lot line and a minimum of 150 feet from any residence that is not a participating residence.

b. No structures, excluding power lines for interconnection, may exceed twenty (20) feet in height. Power lines shall be placed underground to the maximum extent possible.

Power and communication lines running between banks of solar panels will be secured using a Cable Management System (CAB). All DC power and communication lines will be buried underground. To support the required equipment to interconnect the proposed project to the ComEd grid, utility poles and a power line will be installed aboveground to interconnect to the existing overhead electrical infrastructure

c. Lighting must comply with § 16.60.020 (Exterior Lighting).

There is no lighting on the site.

d. Solar panels shall have a surface that minimizes glare and shall comply with § 16.60.040D. (Lighting and Glare).

Modules are designed with anti-reflective coating and demonstrate less glare than windows or water.

e. The facility shall be situated as to **minimize impacts to woodlands, savannas, wetlands, drainage tiles, and encroachment into flood plains.** All site development shall comply with the **Stormwater Management Ordinance**. Any damaged drainage tiles shall be repaired.

The proposed project has been situated as to minimize impacts to the surrounding environment and will comply with all of the County's Flood Damage Ordinance and Stormwater Management Ordinance. The proposed project will repair/replace any damage to the drain tile system.

f. In order prevent erosion, manage run-off, and provide ecological benefit, the facility shall be **planted with "low-profile" native prairie species, using a mix appropriate for the region and soil conditions per Illinois Department of Natural Resources (IDNR) standards**, as amended from time to time.

The project will provide a Vegetation Management Plan outlining the native prairie species mix appropriate for the region and soil conditions in alignment with the Illinois Department of Natural Resources (IDNR) Standards prior to building permit issuance.

g. Fencing shall be provided in compliance with the National Electrical Code, as applicable. The use of barbed wire must comply with § 16.56.050H.1.c. of this Ordinance

The project will be surrounded by a 7' agricultural style fence and gated for security purposes.

h. Any part of the facility that is within five hundred (500) feet of a **NONPARTICIPATING RESIDENCE,** or road right-of-way, shall be landscaped with an arrangement of native shrubs, subject to approval by the County Board, unless the facility is screened from view by existing vegetation.

The proposed facility has consulted with the McHenry County zoning and planning office for guidance regarding vegetation landscaping. Vegetation screening consisting of native shrubs and evergreen trees will be installed, where necessary, in locations that are within five hundred (500) feet of a non-participating residence or road right of way.

i. Prior to building permit issuance, the operator shall prepare a landscape monitoring and maintenance plan to ensure the establishment and continued maintenance of the native prairie species, all installed landscape screening, and all existing vegetation that provides required landscape screening.

The owner operator of the facility will prepare a landscape monitoring and maintenance plan to ensure establishment and oversight of vegetation screening and prairie species maintenance.

j. Prior to scheduled public hearing, the operator shall enter into an **Agricultural Impact Mitigation Agreement** with the Illinois Department of Agriculture (IDOA), as required by that department.

Skystone Solar LLC has executed an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. The AIMA agreement is included as part of the application documents.

k. Prior to building permit issuance, the operator shall provide an executed road use agreement between the Applicant and the appropriate governing road and highway jurisdictions or the Illinois Department of Transportation (IDOT), showing approved entrances.

Prior to building permit issuance, the project will obtain the required IDOT road permit and enter into a Road Use Agreement with the County, Highway Commissioner or Township Road District, as necessary. The facility owner will pay for any reasonable costs incurred to repair and improve the roads following construction of the facility.

3. Safety.

a. Prior to construction, the operator shall prepare an emergency management plan acceptable to the County and the local fire district and shall be responsible for training of emergency personnel, as needed.

The project has consulted with the local fire district and shared the preliminary site plan. The operator will provide an emergency management plan acceptable to the County and fire prevention bureau prior to construction. The project will provide resources to support training of emergency personnel, as needed.

b. A sign shall be posted providing the name of the operator and a phone number to be used in case of an on-site emergency.

The proposed project will have a sign with the name of the operator and emergency contact number at the entrance to the site.

c. Access shall be granted, provided appropriate advance notice, for periodic inspection of the site by the County or the local fire district.

The project has consulted with the local fire prevention bureau district and the operator will grant access, with appropriate advance notice, for inspection of the site by County or Fire District officials.

d. Damaged solar panels shall be removed, repaired, or replaced within sixty (60) days of the damage. The ground shall remain free of debris from damaged solar panels at all times.

In the event that solar panels are damaged, they will be removed, repaired and replaced within sixty (60) days. The project will undergo scheduled inspections and the ground will always remain free of debris from damaged solar panels.

4. ***Abandonment.***

   a. The COMMERCIAL SOLAR ENERGY FACILITY shall be considered abandoned if the operator fails to pay rent as specified in the Agricultural Impact Mitigation Agreement, or it ceases to generate electricity for a period of twelve (12) consecutive months. Reports of electrical power production shall be provided to the County upon request. An abandoned COMMERCIAL SOLAR ENERGY FACILITY must be decommissioned and removed within twelve (12) months from the time it is deemed abandoned. The operator may appeal in writing to the Zoning Enforcement Officer for an extension of time in order to remove the facility or to bring the solar farm back into operation.

      Skystone Solar, LLC guarantees that the facilities will be properly removed within 12 months of the end of the project lifetime or in the unlikely event that the system ceases power production for a period of 12 months. The project will provide reports on electrical power production when requested by the County. If necessary, the operator will appeal in writing to the Zoning Enforcement Officer for an extension of time to bring the project back or operation or to extend decommissioning.

5. ***Decommissioning.*** Decommissioning and removal of the COMMERCIAL SOLAR ENERGY FACILITY shall be the responsibility of the operator upon abandonment or revocation of the conditional use permit.

   All operators shall comply with the following:

   a. Prior to building permit issuance, the operator shall prepare a decommissioning plan which shows the final site conditions after the COMMERCIAL SOLAR ENERGY FACILITY has been removed from the property. Decommissioning plans shall require removal of all solar panels, electrical equipment, piles, foundations, and conduits (above and below ground). Access roads, fencing, groundcover, and landscaping may remain only by agreement of property owner.

      Prior to building permit issuance, Skystone Solar, LLC will prepare a decommissioning plan outlining the steps to bring the facility back to the original site condition. Skystone Solar LLC guarantees that the facilities will be properly removed within 12 months of the end of the project lifetime or in the unlikely event that the system ceases power production for a period of 12 consecutive months. The project will comply with all of the McHenry County decommissioning requirements.

b. Prior to building permit issuance, the operator shall submit an engineer's estimate of cost for decommissioning the facility and restoring the site in accordance with the approved decommissioning plan. Upon review and approval by the Zoning Enforcement Officer of the estimate, the operator shall obtain a bond, letter of credit, or other form of surety acceptable to the County to be held by the Department of Planning and Development in the amount of one hundred percent (100%) of the estimate. Provision of this financial assurance shall be phased in over the first eleven (11) years of the project's operation or as otherwise provided in accordance with the executed Agricultural Impact Mitigation Agreement.

Prior to building permit issuance, Skystone Solar, LLC will post a decommissioning bond with the County's Treasurers Office. Skystone Solar, LLC understands and will submit payments in accordance with the payment schedule as listed in the Agricultural Impact Mitigation Agreement.

c. During the operation of the facility, a new engineer's estimate of cost for decommissioning shall be submitted every ten (10) years to the Department of Planning and Development. Upon approval of the estimated costs by the Zoning Enforcement Officer, a revised surety shall be provided to the Department of Planning and Development in the amount of one hundred percent (100%) of the new estimate.

Skystone Solar, LLC will submit an updated cost estimate every ten (10) years, and upon approval, will provide a revised surety bond to the Department of Planning and Development that meets one hundred percent (100%) of the new estimate.

EXHIBITS

Exhibit A: McHenry County Conditional Use Permit Application Form

Exhibit B: Solar Overview

Exhibit C: Construction Overview

Exhibit D: Operations and Maintenance Overview

Exhibit E: Decommissioning

Exhibit F: Site Plan

Exhibit G: FEMA FIRM Map

Exhibit H: AIMA

Exhibit I: IDNR EcoCAT Consultation

Exhibit J: ILHPA preliminary SHPO review

Exhibit K: Construction and Haul Route

Exhibit A

Exhibit B

Exhibit B

Solar Overview

Solar Technology

Skystone Solar, LLC will contain rows of Photovoltaic (PV) cell modules mounted on posts set in the ground. These rows of modules are referred to as "solar arrays" mounted on a single axis tracking system, which allows them to follow the sun throughout the day. The modules face east in the morning, are horizontal at midday, and face west in the afternoon, and are no more than fifteen (15) feet high at max tilt. Solar components will comply with the current edition of the National Electric Code, are UL Listed or equivalent, and will have an anti-reflective coating.

The project currently anticipates a battery storage system will also be incorporated into Skystone Solar, LLC. The battery will meet all applicable codes including NFPA and UL standards[1].

The basic components of any solar energy facility include: PV modules, inverters, combiner boxes, transformers, battery, wires and conductor cables, structural racking system for PV modules, an access road, and perimeter fencing. Solar electricity production includes the following components:

1) Electrical Power Generation. Sunlight strikes the PV module cells, which convert photons of light into electrons, producing low-voltage, Direct Current (DC) electricity.
2) Combiner Boxes. The low-voltage, DC electricity is fed through cables from each PV module to a combiner box.
3) Inverters. The low-voltage, DC electricity is fed through cables from the combiner box to an inverter, where it is converted to low-voltage, Alternating Current (AC) electricity.
4) Transformers. The transformer steps up the low-voltage, AC electricity to the appropriate voltage so that it can be fed into the electrical transmission system.
5) Battery Storage. The battery can store electricity generated by the solar system in order to distribute energy to the local grid when the electricity is in higher demand.
6) Utility Distribution. Electricity is sent through the electrical sub-transmission lines to utility distribution systems for delivery to ratepayers.

Current photovoltaic modules are typically Crystalline Silicone (C-Si) and Thin Film (TF). The solar PV modules function as a solid state, inert crystal, similar to a pane of solid glass. The modules do not corrode and do not produce any emissions. The technology is encapsulated in layers of plastic and glass to prevent air and moisture from entering the cell and conversely prevents the release of materials out of the module and into the environment[2]. The solar panels are expected to work upwards of 40 years before they are recycled to recover the valuable materials contained inside.

[1] https://cdn.prod.website-files.com/666b00bb91a866df89c4f469/667af128b816c4f5c33a4a1d_ESS%20Codes%20and%20Standards%20Overview.pdf

[2] https://nccleantech.ncsu.edu/wp-content/uploads/2018/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-2017_white-paper.pdf

Exhibit B

Current battery technology is typically lithium-ion batteries. The battery can enhance the electric grid by storing electricity produced by the solar panels and deploying that power to the grid at times of high stress.

Glare

Photovoltaic solar energy systems are designed to reduce reflection and have low potential to produce hazardous glare. Modules are covered with anti-reflective coating and demonstrate less glare than windows and water[3].

Sound

The solar energy system produces minimal sound during the day and no sound overnight. The main source of noise is from the inverter, but this noise cannot be heard beyond the project boundary. The inverter rated at 67 decibels, about the volume of a washing machine, at 10 meters.[4]

Environmental Impact

Skystone Solar will contract environmental consultants to perform field investigations, literature reviews, and agency consultations to identify and assess existing environmental conditions at the project site. Information derived from the environmental diligence is used by Skystone Solar to avoid and minimize effects to environmental resources during the design process. Full compliance with federal, state, and local regulations will ensure Skystone Solar will not result in adverse impacts to environmental resources. Skystone Solar has consulted with the Illinois Department of Natural Resources who determined that adverse effects to protected species are unlikely from the project.

Safety

Skystone Solar will be a safe facility that will not impact the well-being of local residents or McHenry County. Solar energy facilities are very safe, with simple and proven technologies.

The project will be constructed according to all required building and electrical codes and safety measures. Site plans will be approved by all applicable local authorities, and regularly visited throughout construction as required by the Mc Henry County's or by the State of Illinois' building codes. Energized system components, such as inverters, will be commissioned by the manufacturers' technicians. The project will employ required lock-out measures and safety warnings. A 7' tall perimeter fence per National Electrical Code regulations will prevent trespassing and vandalism. Access codes to the gate will be provided to the Police Department, Fire Department, and emergency service providers. Vehicular access to the site is adequate for the use proposed and for emergency services.

[3] https://www.nrel.gov/state-local-tribal/blog/posts/research-and-analysis-demonstrate-the-lack-ofimpacts-of-glare-from-photovoltaic-modules.html
[4] https://www.enfsolar.com/pv/inverter-datasheet/13175

Exhibit B

The foundation and design of the solar structures shall be designed and sealed by an Illinois licensed professional engineer. The design shall conform to applicable codes, standards and local soil and climate conditions.

The regular vegetation control methods prevent buildup of debris that could otherwise pose risk of fire material, thus Skystone Solar, LLC will pose no increased risk of fires to the surrounding areas.

Skystone Solar will continue to coordinate with all necessary Federal, State, and County agencies and other entities throughout the planning process for Skystone Solar, LLC.

Exhibit C

Exhibit C

Construction Overview

Timeline

The construction of Skystone Solar is expected to take approximately 20-26 weeks using standard solar construction procedures. The utility's engineering, procurement, and construction of the interconnection facilities will take 6-18 months total and will be complete just before the construction of the solar farm itself. Finally, the solar farm will go through 2-3 months of commissioning before reaching commercial operation.

Finances and Labor

Skystone Solar, LLC expects to invest an estimated $5,000,000 into the project. These costs are based on build cost assumptions and include all construction, material, labor, and professional service-related expenditures. Cultivate Power, in combination with tax equity and debt partners, will provide the financial backing for the project.

Approximately $3,000,000 of the project cost will benefit the local economy including expenditures on parts and labor, goods and services, fuel and lodging, dining and other consumer resources. Skystone Solar, LLC will result in the creation of approximately 20 local jobs during construction provided that qualified, local labor is available[5]. Cultivate Power hires and works with qualified, local subcontractors wherever possible. Local contractors are most familiar with local practices and authorities, which streamlines work on our projects.

Soil, Grading, and Vegetation

Most sites require minimal grading and an entire facility can often be installed with minimal soil disturbance. Soil will not be removed from the site except in the case of remediation. Structural frames are driven into the ground with steel beams on which PV modules are mounted. The inverters. transformers and battery storage are mounted on top of small concrete pads – the only concrete on the project. The project area will be seeded with native plantings.

Drain Tile

Skystone Solar is committed to maintaining the integrity of existing drain tile conditions. Field tile will be surveyed prior to construction and repaired or replaced if impacted.

Traffic

A temporary and limited rise in vehicle traffic during the construction period is anticipated: approximately 2-15 personal cars and 1-10 trucks will visit the site per day.

[5] https://www.seia.org/research-resources/national-solar-jobs-census-2020

Exhibit D

Exhibit D

Operation and Maintenance Overview

Equipment Maintenance

Once constructed, the project will be monitored remotely and will require minimal maintenance, anticipated 5-9 site visits per year. The project will not require on-site manning, nor will it require sewer, water, or other services.

Vegetation Maintenance

Skystone Solar, LLC is committed to landscaping best practices that stabilize the soil to add strength and durability for the long-term success of the project and the health of the land. Based on the specific site, local plantings will be chosen and maintained to prevent erosion, manage run off, and build soil. Seeding will be from a mix of local plants.

Skystone Solar will maintain vegetation for property within the fence line and property immediately surrounding fencing (within reason), specifically ensuring vegetation does not encroach on solar panels. Frequency of vegetation management visits is determined by both regional and seasonal factors. We anticipate mowing will occur at the Skystone Solar site at maximum 6 times a year.

Traffic Safety

No significant traffic impacts are anticipated due to Skystone Solar. With no more than one to three vehicle visits per quarter on average, the project will not be a significant traffic generator and will not cause undue harms to the surrounding road networks, to local responders, or to the Illinois Department of Transportation.

Exhibit E

Exhibit E

Decommissioning

Commitments and Code Adherence

Skystone Solar, LLC guarantees that Skystone Solar shall be removed, at the expense of the operator, at the end of the project lifetime or in the unlikely event that the system ceases power production according to the conditions below. The project will comply with McHenry County decommissioning requirements and has signed an Agricultural Impact Mitigation Agreement (AIMA) with the Illinois Department of Agricultural that further commits Skystone Solar, LLC to proper decommissioning processes.

Decommissioning Conditions

Decommissioning will occur as a result of any of the following conditions:

- The land lease expires or is terminated; or
- The solar energy system the ("SES") does not produce power for a period of 12 consecutive months

Decommissioning Steps

If any of the decommissioning conditions are met, the operator is responsible for decommissioning steps including:

- Remove all Operator-owned equipment, conduits, structures, and foundations to a depth of at least five feet below grade; and
- Remove all fencing unless the owner of the leased real estate requests in writing for it to stay in place; and
- Take the following steps to restore the land:
    - Grade to maintain existing drainage patterns at the time of decommissioning unless stated otherwise by the leading Authority Having Jurisdiction (AHJ) or in any governing decommissioning ordinance;
    - Reseed the land using local non-invasive grasses; and
    - Maintain the grass for a total of three months after the seeding.

Financial Assurance

Skystone Solar, LLC will provide McHenry County with financial assurance of decommissioning in the form of a surety bond as determined by the decommissioning estimate. The preliminary decommissioning estimate is approximately $525,872.00. Skystone Solar will submit a surety bond to the McHenry County zoning office prior to building permit issuance. According to the Standard Solar AIMA V.8.19.19, we propose financial assurance be phased in as follows:

10% prior to the end of the first year of operation
50% prior to the end of the sixth year of operation
100% prior to the end of the eleventh year of operation

Plan Changes

Any updates to the decommissioning plan will be submitted within 30 days to the McHenry County Zoning Office by the party responsible for decommissioning the SES.

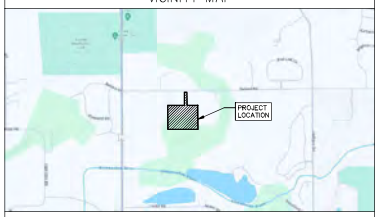
Exhibit F



GRAPHIC SCALE IN FEET
0 50 100 200

NORTH

VICINITY MAP



SCALE: 1" = 1000'

LEGEND

ROAD LABEL	BALLARD RD
EX. ROAD CENTERLINE (TRACED PER AERIAL)	
PROJECT BOUNDARY (PER KMZ FILE PROVIDED BY CULTIVATE ON 04/23/2025)	
PROPERTY LINE (TRACED PER MCHENRY COUNTY GIS)	
PROPERTY LINE SETBACK (PER THE MCHENRY COUNTY SOLAR ORDINANCE)	
EX. RESIDENCE/STRUCTURE (TRACED PER AERIAL)	
EX. RESIDENTIAL BUILDING SETBACK (PER THE MCHENRY COUNTY SOLAR ORDINANCE)	
EX. OVERHEAD ELECTRIC (TRACED PER AERIAL)	EX OHE
EX. UTILITY POLE (TRACED PER AERIAL)	
EX. WETLAND (DOWNLOADED PER NWI ON 04/30/2025)	
EX. ADID WETLAND (DOWNLOADED PER MCHENRY COUNTY GIS ON (6/24/2025	
EX. TREES/VEGETATION	
EX. CONTOURS	XXX
EX. FLOW DIRECTION AND SLOPE	XX%
PR. FENCE	X X X
PR GRAVEL ACCESS ROAD	
PR. SOLAR ARRAY	
PR. PANEL LIMITS	
PR. STAGING AREA	
PR. EQUIPMENT PAD	
PR. OVERHEAD ELECTRIC	OHE
PR. UNDERGROUND ELECTRIC	UGE UGE UGE UGE
PR. UTILITY POLE	
PR. SUPPORTING FACILITIES - ENERGY STORAGE	
PR. TREE CLEARING	
PR. VEGETATIVE SCREENING	

NOTES

1. THE PURPOSE OF THIS PLAN IS FOR SPECIAL USE PERMIT REVIEW AND APPROVAL BY MCHENRY COUNTY TO CONSTRUCT A SOLAR ENERGY SYSTEM.
2. THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING MCHENRY COUNTY, GOOGLE EARTH, AND USGS TOPOGRAPHIC INFORMATION.
3. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (17111C0310J) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
4. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO; FENCING, SOLAR ARRAY RACKING, INVERTOR/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS DURING FINAL ENGINEERING.
5. STORMWATER MANAGEMENT FACILITIES TO BE PROVIDED AS REQUIRED BY COUNTY AND/OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING REQUIREMENTS TO BE DETERMINED DURING FINAL ENGINEERING.
6. A SOIL EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE NPDES STANDARDS WILL BE PROVIDED TO THE COUNTY DURING FINAL ENGINEERING.
7. SETBACKS SHOWN ON THIS PLAN ARE BASED ON THE MCHENRY COUNTY SOLAR ORDINANCE.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL TRAFFIC MAY PROCEED NORMALLY AGAIN.
9. SOLAR PANELS SHALL NOT EXCEED 20 FEET IN HEIGHT WHEN ORIENTED AT MAXIMUM TILT ACCORDING TO THE MCHENRY COUNTY SOLAR ORDINANCE.

SITE DATA TABLE

PIN #	18-04-200-005
PROPERTY OWNER	ANSAR A ELYAS MOHAMMED
SITE ADDRESS	11305 BALLARD RD, WOODSTOCK, IL 60098
ZONING JURISDICTION	MCHENRY COUNTY, AGRICULTURAL
CURRENT LAND USE	HOMESITE-DWELLING
PROPOSED LAND USE	COMMERCIAL SOLAR ENERGY FACILITY
PROJECT BOUNDARY AREA	20.4 ± AC
AREA WITHIN FENCE	16.9 ± AC
PRELIMINARY SOLAR AREA	14.3 ± AC
TREE CLEARING	5.0 ± AC
ADJACENT PROPERTY LINE SETBACK	50'
DWELLING UNIT SETBACK	150'
MWDC/MWAC	5.0/3.35
NUMBER OF MODULES	8300
GCR	39%

No.	REVISIONS	DATE
2	UPDATE PER CLIENT COMMENTS	06/24/2025
1	UPDATE PER PEP REQUIREMENTS	06/09/2025

CULTIVATE POWER

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

570 LAKE COOK RD SUITE 200
DEERFIELD, IL 60015
WWW.KIMLEY-HORN.COM

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT 068262055
ORIGINAL DATE 05/09/2025
SCALE AS SHOWN
DESIGNED BY SFH
DRAWN BY SFH
CHECKED BY GPC

ZONING SITE PLAN

SKYSTONE SOLAR, LLC
MCHENRY COUNTY, IL

SHEET NUMBER
EX-1

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\DFS_LEC\268262055_Cultivate_Skystone_IL\V2 Design\CAD\Exhibits\Zoning Site Plan.dwg Layout: Jun 25, 2025 5:14pm by: SaraFerreira-Mensah

Exhibit G

National Flood Hazard Layer FIRMette

FEMA

88°25'13"W 42°14'25"N



88°24'36"W 42°13'58"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

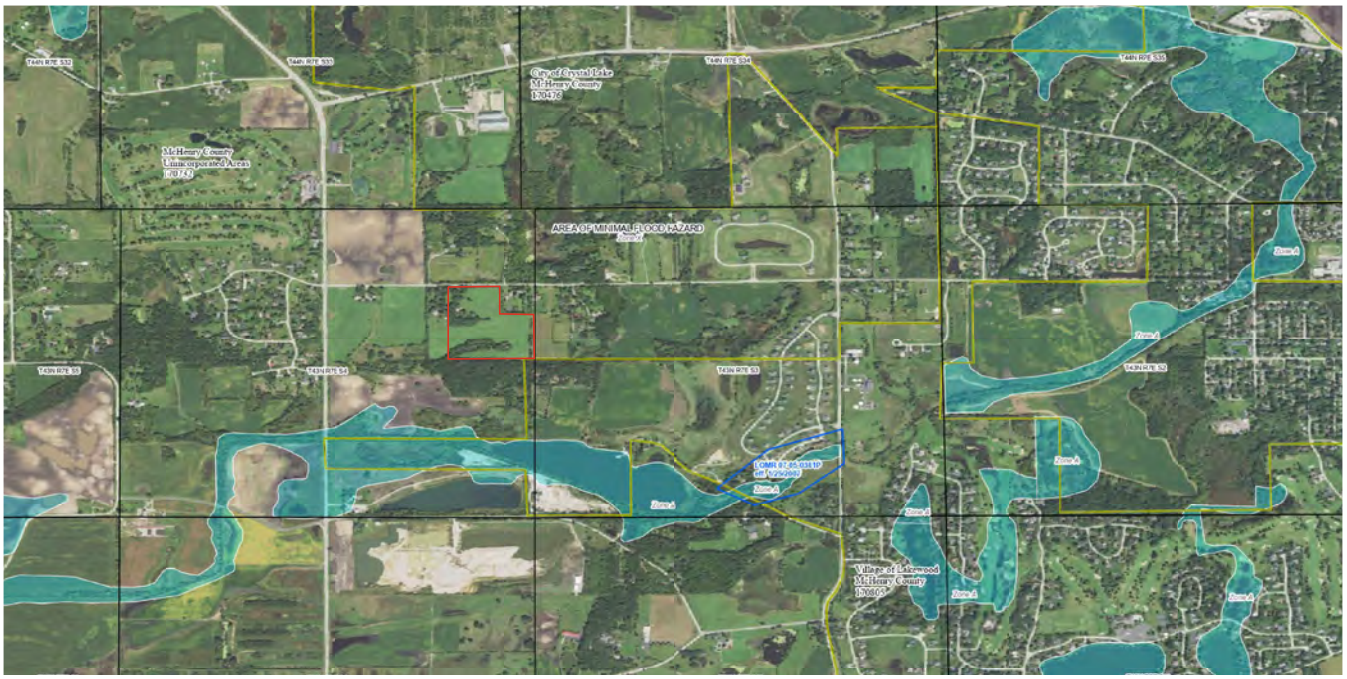
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/23/2025 at 4:56 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

88°26'15.88"W 42°16'9.46"N



88°22'25.17"W 42°11'58.1"N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, 499*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 4/23/2025 4:54 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/115418.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: No elevation features on this FIRM
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

N

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

0 500 1,000 2,000 3,000 4,000 Feet

0 105 210 420 630 840 Meters

FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

PANEL 310 OF 365

Panel Contains:

COMMUNITY	NUMBER	PANEL
CITY OF CRYSTAL LAKE	170476	0310
VILLAGE OF LAKEWOOD	170895	0310
MCHENRY COUNTY	170732	0310

MAP NUMBER
17111C0310J
EFFECTIVE DATE
November 16, 2006

Exhibit H

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between

Skystone Solar, LLC

and the

ILLINOIS DEPARTMENT OF AGRICULTURE

Pertaining to the Construction of a Commercial Solar Energy Facility

in

McHenry **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).

Skystone Solar, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 3.5MWac Commercial Solar Energy Facility in McHenry County [GPS Coordinates: 42.23690, -88.41460], which will consist of up to 26 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.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

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.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

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.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

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 Skystone Solar, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in McHenry County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE

Jerry Costello II

By: Jerry Costello II, Director

Clay Nordsiek

By Clay Nordsiek, Deputy General Counsel

801 E. Sangamon Avenue,
State Fairgrounds, POB 19281
Springfield, IL 62794-9281

4/22, 2025

Skystone Solar, LLC

Signed by:
Paul Bottum
D63D1D8F79704DD...

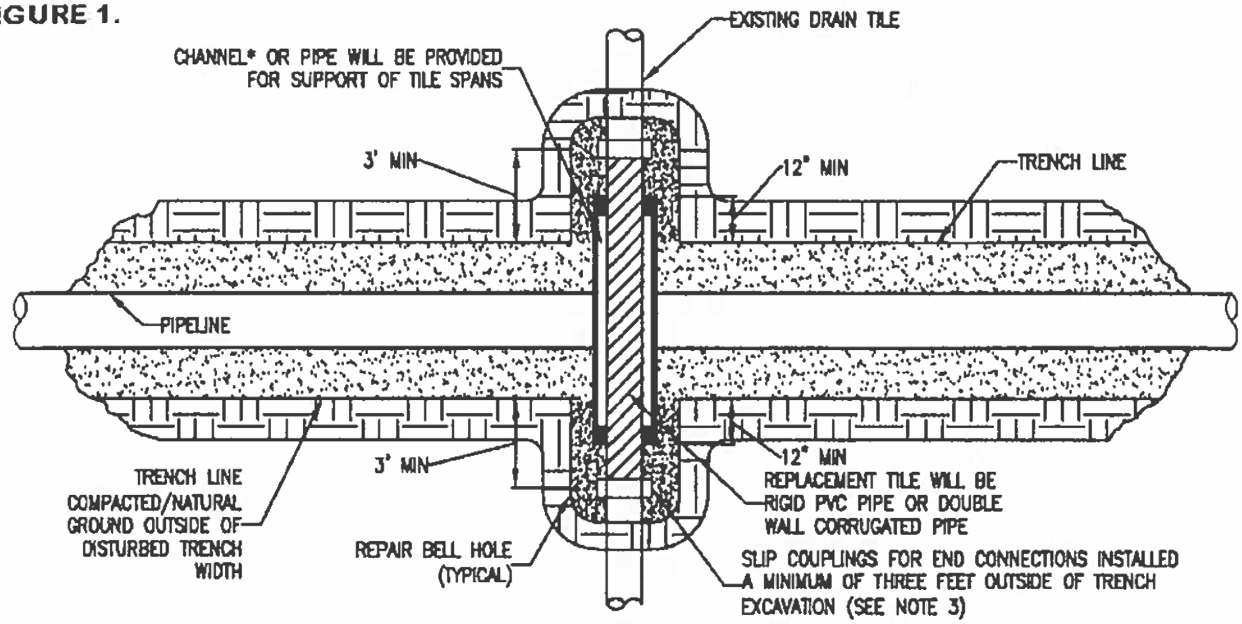
By Paul Bottum, Authorized Person

Address

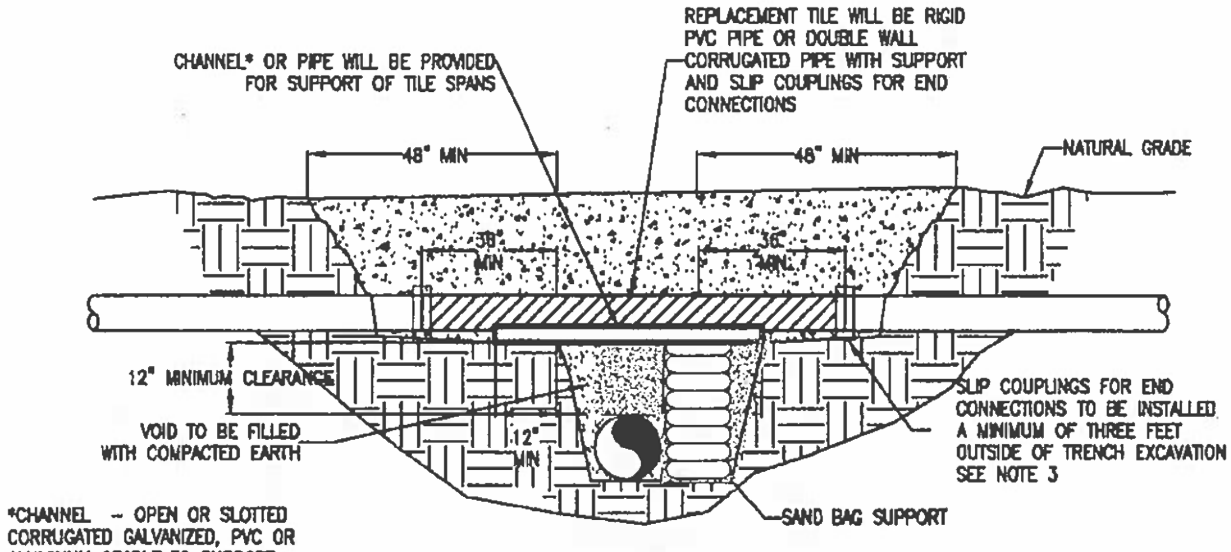
30 W Hubbard St., Ste 400
Chicago, IL 60654

April 14, 2025

FIGURE 1.



PLAN
N.T.S.



*CHANNEL – OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

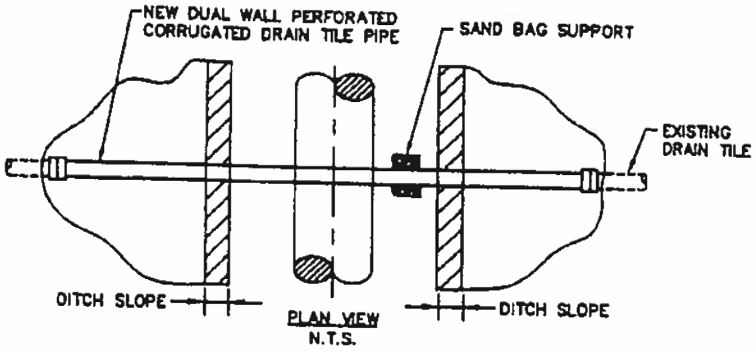
CROSS SECTION
N.T.S.

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.

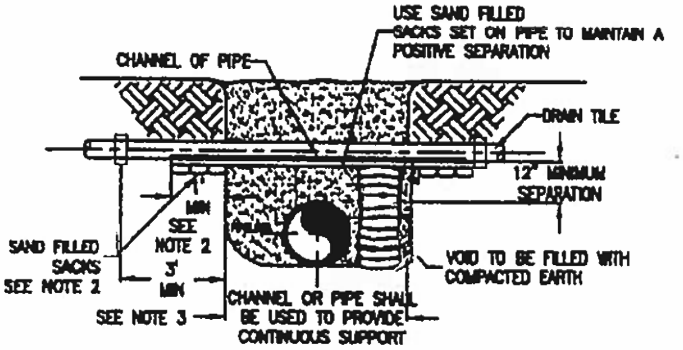
TEMPORARY DRAIN TILE REPAIR

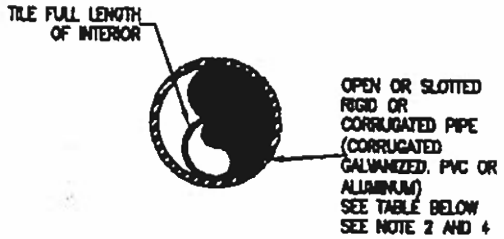
FIGURE 2.



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 SUP 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

Exhibit I

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Skystone Solar, LLC
Contact: Paul Bottum
Address: 30 W Hubbard St
Ste 400
Chicago, IL 60654

IDNR Project Number: 2512270
Date: 04/23/2025

Project: Skystone Solar, LLC
Address: 11305 Ballard Rd, Woodstock

Description: 3.35MWac Community Solar facility

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Blanding's Turtle *(Emydoidea blandingii)*
Brassy Minnow *(Hybognathus hankinsoni)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: McHenry

Township, Range, Section:
43N, 7E, 4



IL Department of Natural Resources Contact
Isabella Newingham
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
McHenry County
Adam Wallen
2200 North Seminary Av
Woodstock, Illinois 60098

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.

Security

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.

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

EcoCAT Receipt

Project Code 2512270

APPLICANT	DATE
Skystone Solar, LLC Paul Bottum 30 W Hubbard St Ste 400 Chicago, IL 60654	4/23/2025

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

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor

Natalie Phelps Finnie, Director

April 24, 2025

Paul Bottum
Skystone Solar, LLC
30 W Hubbard St
Ste 400
Chicago, IL 60654

RE: Skystone Solar, LLC
Project Number(s): 2512270
County: McHenry

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

However, the Department recommends:

Establishing pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:
https://dnr.illinois.gov/conservation/pollinatorscorecard.html

The site should be de-compacted before planting.

Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.

Required fencing, excluding areas near or adjacent to public access areas, should have a 6-inch gap along the bottom to prevent the restriction of wildlife movement. Woven wire or a suitable habitat wildlife friendly fence should be used. Barbed wire should be avoided.

Trees should be cleared between November 1st and March 31st. All night lighting should follow IDA guidance.

Illinois Department of
Natural Resources

JB Pritzker, Governor

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

Natalie Phelps Finnie, Director

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.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, 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, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Isabella Newingham

Isabella Newingham
Division of Ecosystems and Environment
217-785-5500

Exhibit J

Illinois State Historic Preservation Office, Historic and Architectural Resources Geographic Information Systems(HARGIS) – preliminary SHPO review

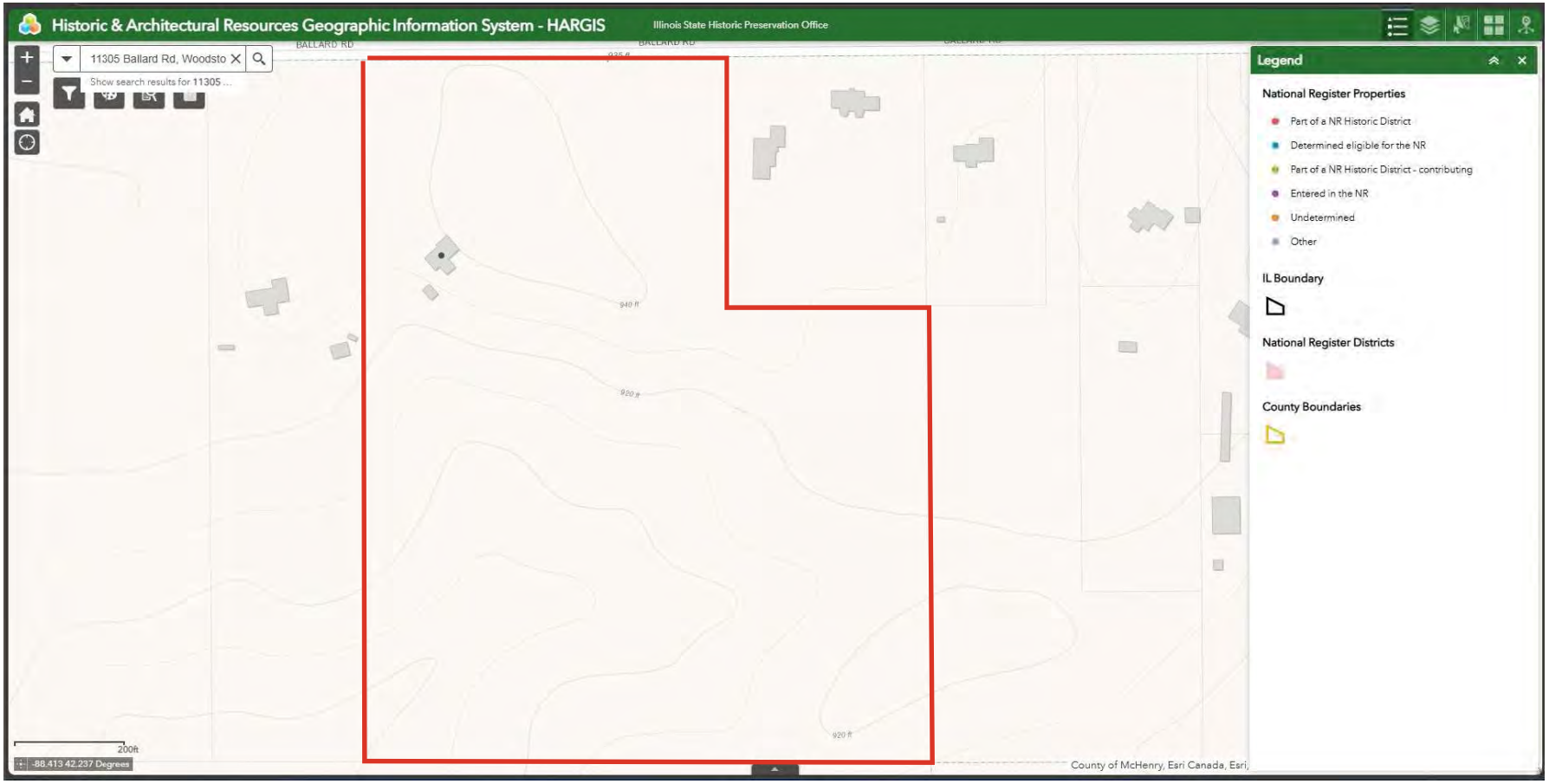


Exhibit K

Construction, Maintenance, and Traffic

Construction Timeline

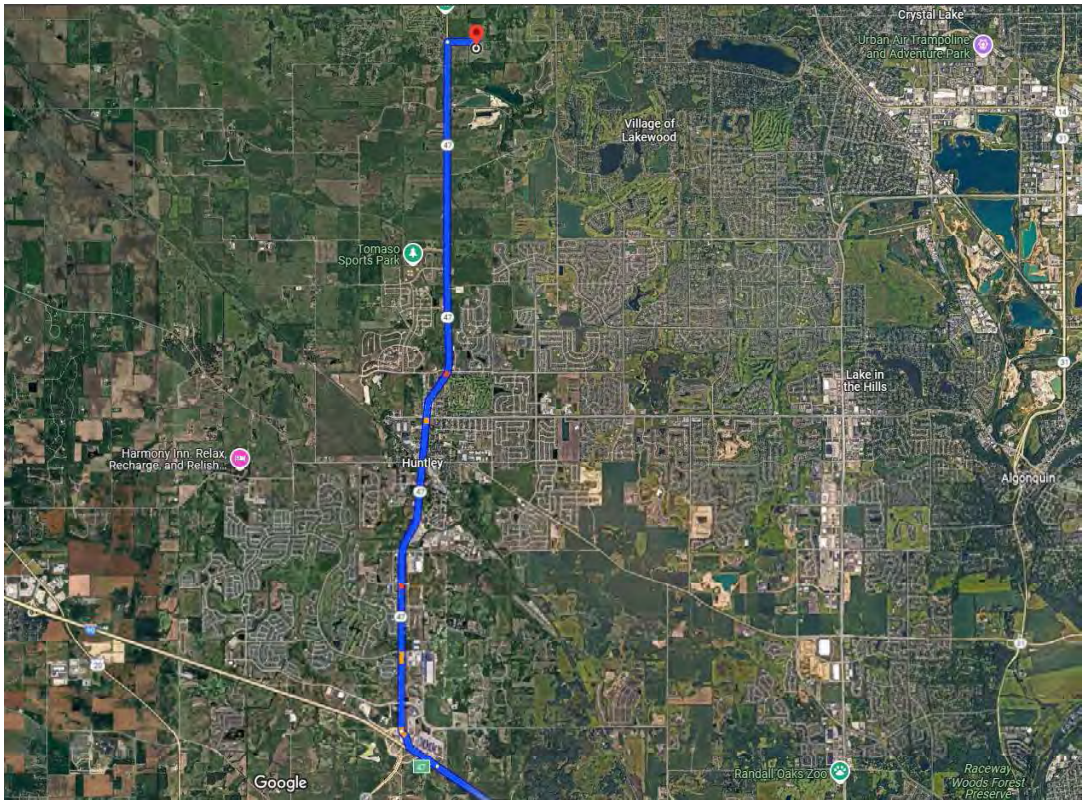
The construction is expected to take approximately 20-26 weeks using standard solar construction procedures. ComEd's engineering, procurement, and construction of the interconnection facilities will take 6-12 months total and will be completed in coordination with solar farm construction. Finally, the solar farm will go through 1-3 months of commissioning before reaching commercial operation.

Traffic Overview

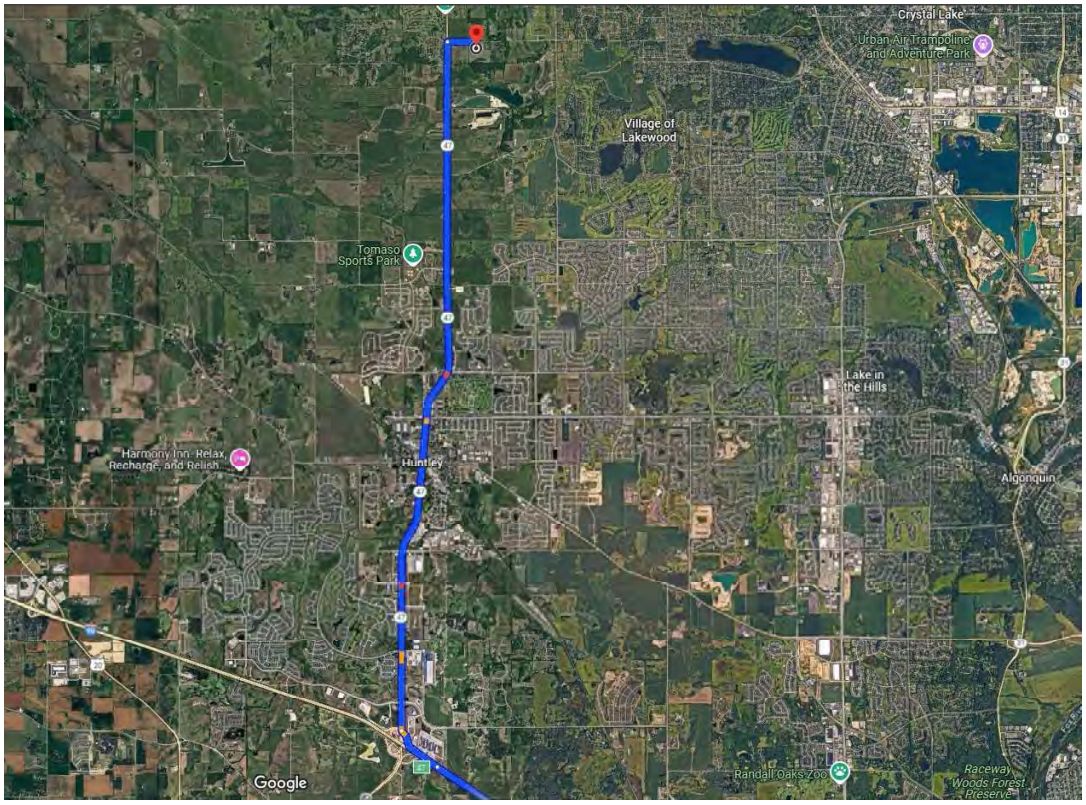
Anticipated construction traffic includes:

1. Major Deliveries during the first 1-2 months:
    a. 18-wheeler 50' trailers or flat beds for:
        i. 3-4 deliveries for modules once a day for a week
        ii. 1 delivery for inverters
        iii. 1 delivery for transformers
        iv. 1 delivery for switchgear
        v. 1 delivery for other electrical equipment
        vi. 3-4 deliveries for racking once a day for a week
    b. (2) 5-ton pile drivers
    c. (2) 5-ton construction extension fork lifts
    d. (2) 20–30-ton excavators
2. Construction duration/personnel – 20-24 workers on site per day for 4-6 months during construction period. Construction Managers and workers usually drive passenger vehicles.
3. There will be no overweight/heavyweight loads exceeding 80,000 pounds during the delivery of the material and equipment for the construction of the site.

Skystone Solar Haul Route



Entrance Route: Interstate 90 -> Exit 47 -> IL-47 N -> Ballard Rd East



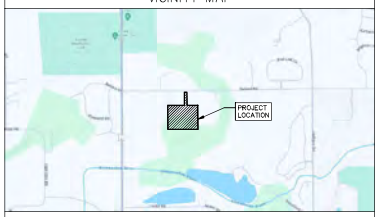
Exit Route: Ballard Rd West -> IL-47 S -> Interstate 90



GRAPHIC SCALE IN FEET
0 50 100 200

NORTH

VICINITY MAP



SCALE: 1" = 1000'

LEGEND

ROAD LABEL	BALLARD RD
EX. ROAD CENTERLINE (TRACED PER AERIAL)	
PROJECT BOUNDARY (PER KMZ FILE PROVIDED BY CULTIVATE ON 04/23/2025)	
PROPERTY LINE (TRACED PER MCHENRY COUNTY GIS)	
PROPERTY LINE SETBACK (PER THE MCHENRY COUNTY SOLAR ORDINANCE)	
EX. RESIDENCE/STRUCTURE (TRACED PER AERIAL)	
EX. RESIDENTIAL BUILDING SETBACK (PER THE MCHENRY COUNTY SOLAR ORDINANCE)	
EX. OVERHEAD ELECTRIC (TRACED PER AERIAL)	EX OHE
EX. UTILITY POLE (TRACED PER AERIAL)	
EX. WETLAND (DOWNLOADED PER NWI ON 04/30/2025)	
EX. ADID WETLAND (DOWNLOADED PER MCHENRY COUNTY GIS ON (6/24/2025	
EX. TREES/VEGETATION	
EX. CONTOURS	XXX
EX. FLOW DIRECTION AND SLOPE	XX%
PR. FENCE	X X X
PR GRAVEL ACCESS ROAD	
PR. SOLAR ARRAY	
PR. PANEL LIMITS	
PR. STAGING AREA	
PR. EQUIPMENT PAD	
PR. OVERHEAD ELECTRIC	OHE
PR. UNDERGROUND ELECTRIC	UGE UGE UGE UGE
PR. UTILITY POLE	
PR. SUPPORTING FACILITIES - ENERGY STORAGE	
PR. TREE CLEARING	
PR. VEGETATIVE SCREENING	

NOTES

1. THE PURPOSE OF THIS PLAN IS FOR SPECIAL USE PERMIT REVIEW AND APPROVAL BY MCHENRY COUNTY TO CONSTRUCT A SOLAR ENERGY SYSTEM.
2. THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING MCHENRY COUNTY, GOOGLE EARTH, AND USGS TOPOGRAPHIC INFORMATION.
3. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (17111C0310J) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
4. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO; FENCING, SOLAR ARRAY RACKING, INVERTOR/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS DURING FINAL ENGINEERING.
5. STORMWATER MANAGEMENT FACILITIES TO BE PROVIDED AS REQUIRED BY COUNTY AND/OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING REQUIREMENTS TO BE DETERMINED DURING FINAL ENGINEERING.
6. A SOIL EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE NPDES STANDARDS WILL BE PROVIDED TO THE COUNTY DURING FINAL ENGINEERING.
7. SETBACKS SHOWN ON THIS PLAN ARE BASED ON THE MCHENRY COUNTY SOLAR ORDINANCE.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL TRAFFIC MAY PROCEED NORMALLY AGAIN.
9. SOLAR PANELS SHALL NOT EXCEED 20 FEET IN HEIGHT WHEN ORIENTED AT MAXIMUM TILT ACCORDING TO THE MCHENRY COUNTY SOLAR ORDINANCE.

SITE DATA TABLE

PIN #	18-04-200-005
PROPERTY OWNER	ANSAR A ELYAS MOHAMMED
SITE ADDRESS	11305 BALLARD RD, WOODSTOCK, IL 60098
ZONING JURISDICTION	MCHENRY COUNTY, AGRICULTURAL
CURRENT LAND USE	HOMESITE-DWELLING
PROPOSED LAND USE	COMMERCIAL SOLAR ENERGY FACILITY
PROJECT BOUNDARY AREA	20.4 ± AC
AREA WITHIN FENCE	16.9 ± AC
PRELIMINARY SOLAR AREA	14.3 ± AC
TREE CLEARING	5.0 ± AC
ADJACENT PROPERTY LINE SETBACK	50'
DWELLING UNIT SETBACK	150'
MWDC/MWAC	5.0/3.35
NUMBER OF MODULES	8300
GCR	39%

No.	REVISIONS	DATE
2	UPDATE PER CLIENT COMMENTS	06/24/2025
1	UPDATE PER PEP REQUIREMENTS	06/09/2025

CULTIVATE POWER

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

570 LAKE COOK RD SUITE 200
DEERFIELD, IL 60015
WWW.KIMLEY-HORN.COM

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT 068262055
ORIGINAL DATE 05/09/2025
SCALE AS SHOWN
DESIGNED BY SFH
DRAWN BY SFH
CHECKED BY GPC

ZONING SITE PLAN

SKYSTONE SOLAR, LLC
MCHENRY COUNTY, IL

SHEET NUMBER
EX-1

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\DFS_LEC\268262055_Cultivate_Skystone_IL\V2 Design\CAD\Exhibits\Zoning Site Plan.dwg Layout: Jun 25, 2025 5:14pm by: SaraFerreira-Mensah

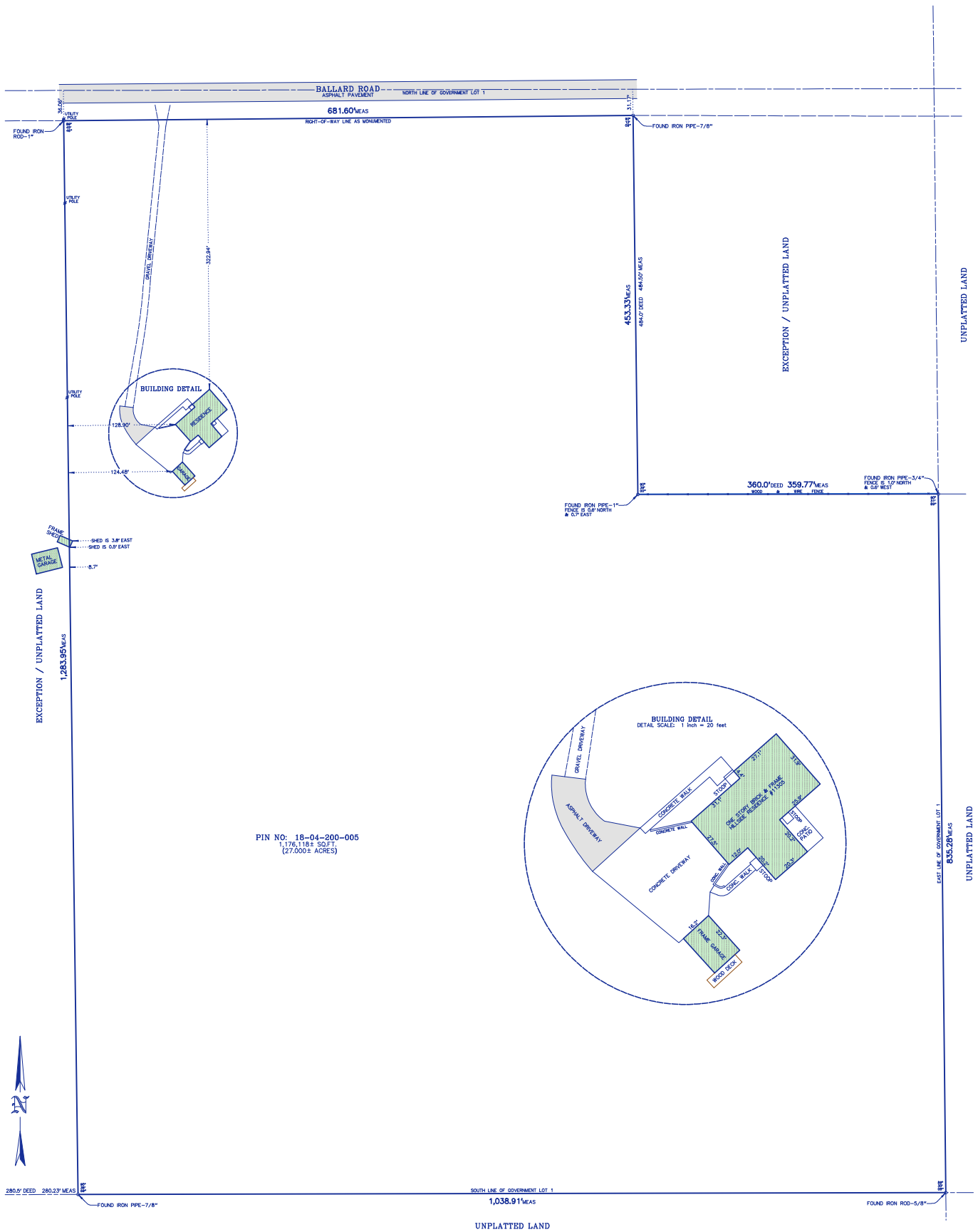
COMPASS ALTERNATIVES
4706 GREGORY STREET
MCHENRY, IL 60051
Licensed Professionals in
both Illinois & Wisconsin
IL DESIGN FIRM #184-008609

PLAT OF SURVEY

THE EAST HALF OF GOVERNMENT LOT 1 IN THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPTING THEREFROM THE NORTH 484.0 FEET OF THE EAST 360.0 FEET THEREOF, AND ALSO EXCEPTING THEREFROM THE WEST 280.5 FEET THEREOF, IN MCHENRY COUNTY, ILLINOIS.

COMMONLY KNOWN AS: 11305 BALLARD ROAD, WOODSTOCK, IL 60098
PERMANENT INDEX NUMBER: 18-04-200-005

PHONE: 847-978-5124
compalt743@gmail.com
www.compassalternatives.com



SCALE: 1 inch = 50 feet
ORDERED BY: GARY WETZEL
REFERENCE: WETZEL
JOB NO.: 22021
FIELDWORK COMPLETED: MAY 13, 2022

COMPARE ALL POINTS AND REPORT ANY DIFFERENCE AT ONCE.
BUILDING LINES AND EASEMENTS ARE SHOWN ONLY WHERE THEY ARE SO RECORDED IN THE MAPS. REFER TO YOUR DEED, ABSTRACT, TITLE POLICY OR BUILDING COMMISSIONER.
DIMENSIONS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF.
NO DIMENSION IS TO BE ASSUMED BY SCALING THIS PLAT.
THIS PLAT IS NOT VALID WITHOUT SURVEYORS SEAL.

STEVEN M. SLOOT
035-3579
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
MCHENRY, ILLINOIS

STATE OF ILLINOIS } s.s.
COUNTY OF McHENRY }

THIS IS TO CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY, ACCORDING TO THE OFFICIAL RECORD, AND THE ABOVE PLAT CORRECTLY REPRESENTS SAID SURVEY.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

STEVEN M. SLOOT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-003579
MY PROFESSIONAL LICENSE EXPIRES ON NOVEMBER 30, 2022.

MCHENRY COUNTY PLANNING AND DEVELOPMENT
2200 N. SEMINARY AVENUE, WOODSTOCK, IL 60098
815-334-4560

Office Use Only

Petition #/Permit # _____

CORPORATE DISCLOSURE

Applications shall be brought in the name of the record title owner or the owner(s) of the beneficial interest through authorized agents. If application is made by a corporation or partnership for any zoning map amendment, variation, or conditional use permit, the application and notice shall identify the names and addresses of all officers and directors and all shareholders/stockholders owning an interest in excess of seven and one-half percent (7.5%)

If an owner, officer, director, shareholder/stockholder is another legal entity and not an individual, we require the same information (name, title, address) for that entity.

Name of Entity: Cultivate Power, LLC

Name	Title (officers, directors, shareholders/stockholders)	Address (address, city, state, zip)	Percent of ownership interest
Noah Hyte	Officer	2412 Pier Ave Santa Monica, CA 90405	50%
Brian Matthay	Officer	2819 Buchanan St San Francisco, CA 94123	50%

Please attach additional information, if needed.

*Extracted from Title 16: Unified Development Ordinance §16.16.020 §§ A1-4 (2014).

MCHENRY COUNTY PLANNING AND DEVELOPMENT
2200 N. SEMINARY AVENUE, WOODSTOCK, IL 60098
815-334-4560

Office Use Only

Petition #/Permit # _____

CORPORATE DISCLOSURE

Applications shall be brought in the name of the record title owner or the owner(s) of the beneficial interest through authorized agents. If application is made by a corporation or partnership for any zoning map amendment, variation, or conditional use permit, the application and notice shall identify the names and addresses of all officers and directors and all shareholders/stockholders owning an interest in excess of seven and one-half percent (7.5%)

If an owner, officer, director, shareholder/stockholder is another legal entity and not an individual, we require the same information (name, title, address) for that entity.

Name of Entity:

Name	Title (officers, directors, shareholders/stockholders)	Address (address, city, state, zip)	Percent of ownership interest
SKYSTONE SOLAR LLC.	OFFICER - NOAH HYTE	2412 PIER AV SANTA MONICA, CA 90405	50
	OFFICER - BRIAN MATTHAY	2819 BUCHANAN ST. SAN FRANCISCO, CA 94123	50

Please attach additional information, if needed.

*Extracted from Title 16: Unified Development Ordinance §16.16.020 §§ A1-4 (2014).

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Skystone Solar, LLC
Contact: Paul Bottum
Address: 30 W Hubbard St
Ste 400
Chicago, IL 60654

IDNR Project Number: 2512270
Date: 04/23/2025

Project: Skystone Solar, LLC
Address: 11305 Ballard Rd, Woodstock

Description: 3.35MWac Community Solar facility

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Blanding's Turtle *(Emydoidea blandingii)*
Brassy Minnow *(Hybognathus hankinsoni)*

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: McHenry

Township, Range, Section:
43N, 7E, 4



IL Department of Natural Resources Contact
Isabella Newingham
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
McHenry County
Adam Wallen
2200 North Seminary Av
Woodstock, Illinois 60098

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.

Security

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.

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

EcoCAT Receipt

Project Code 2512270

APPLICANT	DATE
Skystone Solar, LLC Paul Bottum 30 W Hubbard St Ste 400 Chicago, IL 60654	4/23/2025

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

CohnReznick

www.cohnreznick.com

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:

Kiera Gavin
Senior Development Manager
Cultivate Power
30 West Hubbard Street, Suite 400
Chicago IL 60654

Submitted By:

CohnReznick LLP
Valuation Advisory Services
1 S. Wacker Drive, Suite 3550
Chicago, Illinois 60606
(312) 508-5900

Andrew R. Lines, MAI, CRE
Erin C. Bowen, MAI

March 25, 2025



LETTER OF TRANSMITTAL

March 25, 2025

Kiera Gavin
Senior Development Manager
Cultivate Power
30 West Hubbard Street, Suite 400
Chicago IL 60654

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 Cultivate Power, LLC ("Cultivate Power"). Additional intended users of our findings include Cultivate Power's designated project companies, all relevant permitting authorities for Cultivate Power's proposed solar projects in Illinois. 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:

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

FINDINGS

I. Academic Studies *(pages 20-24):* 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, the majority of the data used in various studies indicates that there is no consistent and measurable impact to surrounding property values. We note that some of these studies do show a very small impact to certain homes, in certain locations, at certain distances, but these conclusions are not necessarily indicative of future projects in other locations.

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 25-97)*: Further, CohnReznick has performed studies in 21 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 eleven 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	MW AC	Acreage
1	Grand Ridge Solar	LaSalle County	IL	20.00	158
2	2662 Freeport Solar	Stephenson County	IL	2.00	18
3	Pretzel CSG	Stephenson County	IL	2.00	15
4	Stockton DG CSG	Jo Daviess County	IL	1.90	23
5	Exelon Solar Chicago	Cook County	IL	9.00	41
6	O'Brien Solar Fields	Dane County	WI	22.10	171
7	Dominion Indy Solar III	Marion County	IN	8.60	134
8	Portage Solar	Porter County	IN	2.00	56
9	Spring Mill Solar	Lawrence County	IN	1.10	9
10	Jefferson County Solar	Jefferson County	CO	1.20	13

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" analyses, in which sales that occurred prior to the announcement and construction of the solar farm project were compared with sales that occurred

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

after completion of the solar farm project, for both adjoining and non-adjoining properties. No measurable impact on property values was demonstrated.

III. Market Participant Commentary *(pages 98-100)*: Our conclusions also consider interviews with over 75 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 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.*
- Angie Dieterman, the Chief County Assessment Officer in Stephenson County where nine solar farms have been constructed since 2020, stated that there has been *no impact on property values due to their proximity to any of the solar farms.*
- Cami Grossenbacher, Stephenson County Deputy Assessor, stated that there has been *no impact on property values due to their proximity to the **2662 Freeport Solar CSG** project.*

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 101-109)*: 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 no negative trend of property values is evident for properties adjacent to solar facilities.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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





Andrew R. Lines, MAI, CRE
Principal - Valuation Advisory Services
Certified General Real Estate Appraiser

Illinois License No. 553.001841
Expires 9/30/2025
Indiana License No. CG41500037
Expires 6/30/2026

Erin C. Bowen, MAI
Director
Certified General Real Estate Appraiser

Iowa License No. CG04209
Expires 6/30/2026
Oregon License No. C001551
Expires 6/30/2026

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

TABLE OF CONTENTS

LETTER OF TRANSMITTAL 2

FINDINGS 3
CONCLUSION 4

SCOPE OF WORK 7

CLIENT AND INTENDED USERS 7
INTENDED USE 7
PURPOSE 7
DEFINITION OF VALUE 7
EFFECTIVE DATE & DATE OF REPORT 8
PRIOR SERVICES 8
INSPECTION 8

OVERVIEW OF SOLAR DEVELOPMENT IN THE UNITED STATES 9

NATIONAL COMMUNITY-SCALE ENERGY PRODUCTION 11
ENERGY PRODUCTION IN ILLINOIS 13

APPRAISAL THEORY – ADJACENT PROPERTY'S IMPACT ON VALUE 16

METHODOLOGY 17
SCOPE OF WORK 18

TECHNIQUE 1: REVIEW OF PUBLISHED STUDIES 20

ACADEMIC REPORTS 20
VALUATION EXPERT REPORTS 23
REAL ESTATE ASSESSOR SOLAR IMPACT REPORTS 24
CONCLUSION 24

TECHNIQUE 2: PAIRED SALE ANALYSIS 25

SOLAR FARM 1: GRAND RIDGE SOLAR FARM, LASALLE COUNTY, ILLINOIS 25
SOLAR FARM 2: 2662 FREEPORT SOLAR CSG, STEPHENSON COUNTY, ILLINOIS 30
SOLAR FARM 3: PRETZEL CSG SOLAR FARM, STEPHENSON COUNTY, ILLINOIS 35
SOLAR FARM 4: STOCKTON DG CSG SOLAR FARM, JO DAVIESS COUNTY, ILLINOIS 40
SOLAR FARM 5: EXELON SOLAR CHICAGO, COOK COUNTY, ILLINOIS 46
SOLAR FARM 6: O'BRIEN SOLAR FIELDS, DANE COUNTY, WISCONSIN 51
SOLAR FARM 7: DOMINION INDY SOLAR III, MARION COUNTY, INDIANA 62
SOLAR FARM 8: PORTAGE SOLAR FARM, PORTAGE, PORTER COUNTY, INDIANA 71
SOLAR FARM 9: SPRING MILL SOLAR, LAWRENCE COUNTY, INDIANA 76
SOLAR FARM 10: JEFFERSON COUNTY COMMUNITY SOLAR GARDEN, JEFFERSON COUNTY, COLORADO 86

TECHNIQUE 3: MARKET COMMENTARY 98

SOLAR FARM FACTORS ON HARMONY OF USE 101

SUMMARY OF ADJOINING USES 109

SUMMARY AND FINAL CONCLUSIONS 110

CERTIFICATION 113

ASSUMPTIONS AND LIMITING CONDITIONS 115

ADDENDUM A: APPRAISER QUALIFICATIONS 119

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SCOPE OF WORK

CLIENT AND INTENDED USERS

The client and intended user of this report is Cultivate Power, LLC and its designated project companies; 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 Cultivate Power's proposed solar projects in Illinois.

INTENDED USE

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 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]

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

EFFECTIVE DATE & DATE OF REPORT

March 25, 2025 (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 three years and is not evaluating a specific subject site. In this instance, there is no “subject property” to disclose.

INSPECTION

Andrew R. Lines, MAI, CRE, and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

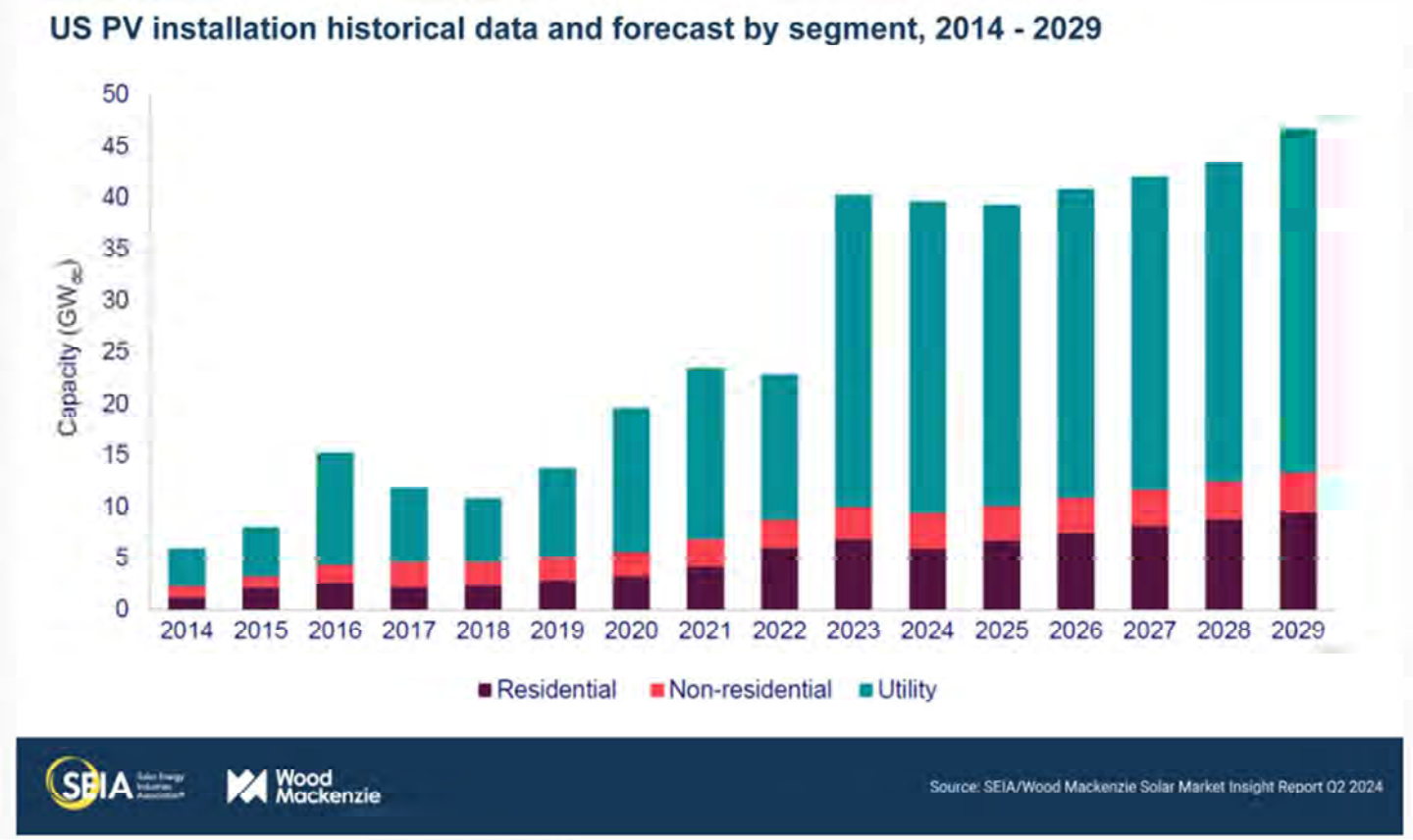
Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client’s legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

OVERVIEW OF SOLAR DEVELOPMENT IN THE UNITED STATES

The United States installed a record-breaking 50 gigawatts (GW) of new solar capacity in 2024, the largest single year of new capacity added to the grid by any energy technology in over two decades.

According to the U.S. Solar Market Insight 2024 Year in Review report released in March 2025 by the Solar Energy Industries Association (SEIA) and Wood Mackenzie, solar and storage account for 84% of all new electric generating capacity added to the grid last year.

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 five years through 2029, with the largest percentage of installations attributed to utility-scale projects.



The US solar industry installed nearly 50 GW of capacity in 2024, a 21% increase from 2023. The industry continued breaking records and experiencing unprecedented growth, accounting for 66% of all new generating capacity added in 2024. All solar segments set annual installation records except for residential solar, which

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

experienced its lowest year of new capacity since 2021. The factors driving installation growth in 2024 varied for each segment. Commercial solar installed 2,118 MW in 2024, setting an annual record and growing by 8% year-over-year. The community solar segment completed its largest-ever quarter in Q4, achieving an annual record of 1,745 MW in 2024. This growth was primarily driven by record-breaking capacity additions in New York, Maine, and Illinois. The utility-scale segment deployed more than 16 GW in Q4 alone, supported by high module inventory levels. For the residential segment, a significant contraction in the California market and the impact of sustained high interest rates nationwide contributed to a 31% year-over-year decline in 2024, with 4.7 GW of installed capacity.

During the first weeks of the new administration, President Trump issued a series of executive orders impacting industries including the energy sector. Several are aimed at promoting fossil fuels and rolling back climate change initiatives. The proposed measures have varying degrees of impact on each solar segment. The industry remains optimistic about the role of solar in achieving energy dominance and meeting rising electricity demand. State-level initiatives and corporate demand will gain more relevance and drive solar development, potentially mitigating the impact of federal mandates. AI and data center growth, combined with supply chain bottlenecks for large gas turbines, will position solar as the preferred technology to meet the growing demand, even more so if paired with storage.

On April 22, 2024 the U.S. Environmental Protection Agency ("EPA") announced $7 billion in grant awards through a grant competition, *Solar for All*, to deliver residential solar projects to over 900,000 households nationwide. The grant competition is funded through the Inflation Reduction Act and will provide funds to states, territories, Tribal governments, municipalities, and non-profits across the country to develop long-lasting solar programs. The program is expected to generate over $350 million in annual savings on electric bills for households.

In response to the Inflation Reduction Act (IRA), there has been a considerable increase in newly announced module manufacturing facilities in the US. As of the end of Q1 2023, Wood Mackenzie is tracking 52 GW of new facilities scheduled to come online by 2026, at least 16 GW of which are under construction.

Over the course of our five-year outlook, the US solar industry is expected to nearly triple in size. Between 2025 and 2029, the industry will add at least 40 GWdc annually increasing capacity by at least 250 GWdc by 2029. Solar will be the leading technology of the clean energy transition, thanks to the long-term policy certainty provided by the IRA.

Wood Mackenzie expects the industry to remain supply-constrained through at least the second half of this year. Equipment importers are still contending with detainments as they seek to provide the documentation needed for compliance with the Uyghur Forced Labor Prevention Act (UFLPA).

Once supply chain relief arrives, the true impacts of the Inflation Reduction Act will manifest in rapid development. Through the first half of 2024 the U.S. solar market installed 21.5 GWdc and is expected to reach 38.9 GWdc by the end of the year.

On December 2nd, 2022, the Department of Commerce issued a preliminary affirmative ruling in the anticircumvention case initiated earlier this year. While the ruling was not issued in time to allow for incorporation into our forecasts, new tariffs present a downside risk to our outlook.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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] One of the bigger factors contributing to growth is the retirements of the existing fossil fleet driven by age and economics. and the more recent increase in demand for electricity driven by data centers, AI, and EVs and economic growth.

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]

NATIONAL COMMUNITY-SCALE ENERGY PRODUCTION

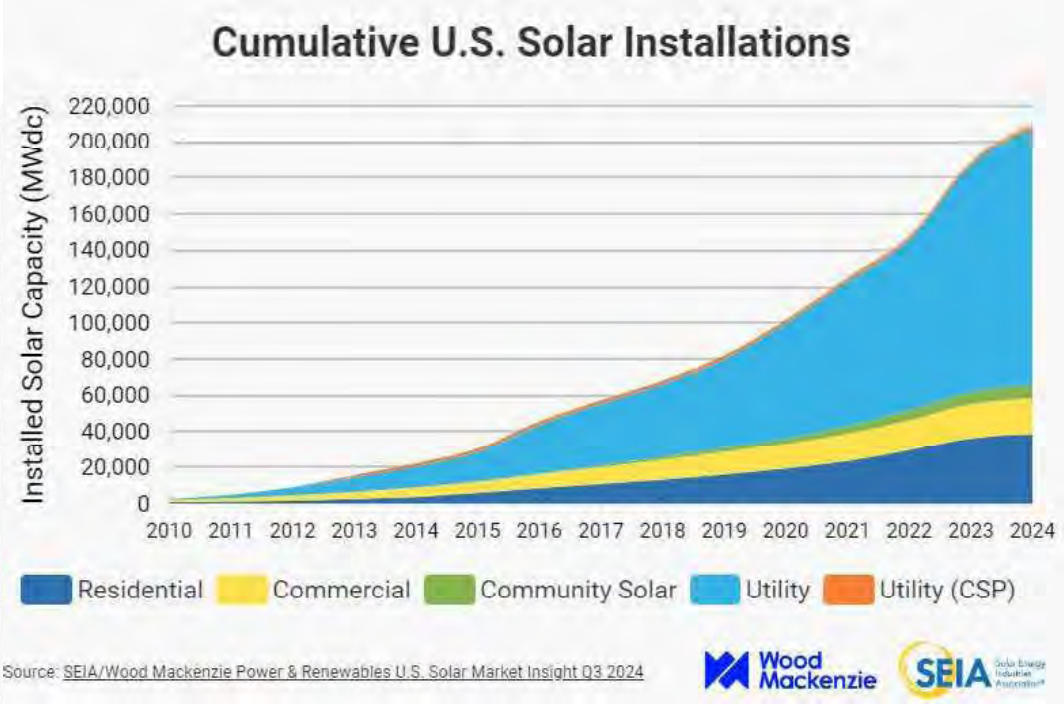
Community solar projects (facilities that generate 5 MW AC or less of power) account for 12,330 MW of installed power in the U.S. as of December 2024, according to U.S. Energy Information Administration (EIA) data. The community solar industry has had a slow start to the year with 577 MW installed through the first two quarters, a two percent decline from the first half of 2023, according to SEIA data. According to the U.S. Energy Information Administration (EIA) through December 2024, there are over 5,123 community solar facilities in operation across the country.

---

[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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Community solar installations declined 12 percent year-over-year as of Q2 2024. Overall, community-scale installations are expected to grow slightly through 2026, however, 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 from 2026 through 2029. The growth of community solar installations from 2010 to 2024 is presented in the following chart.

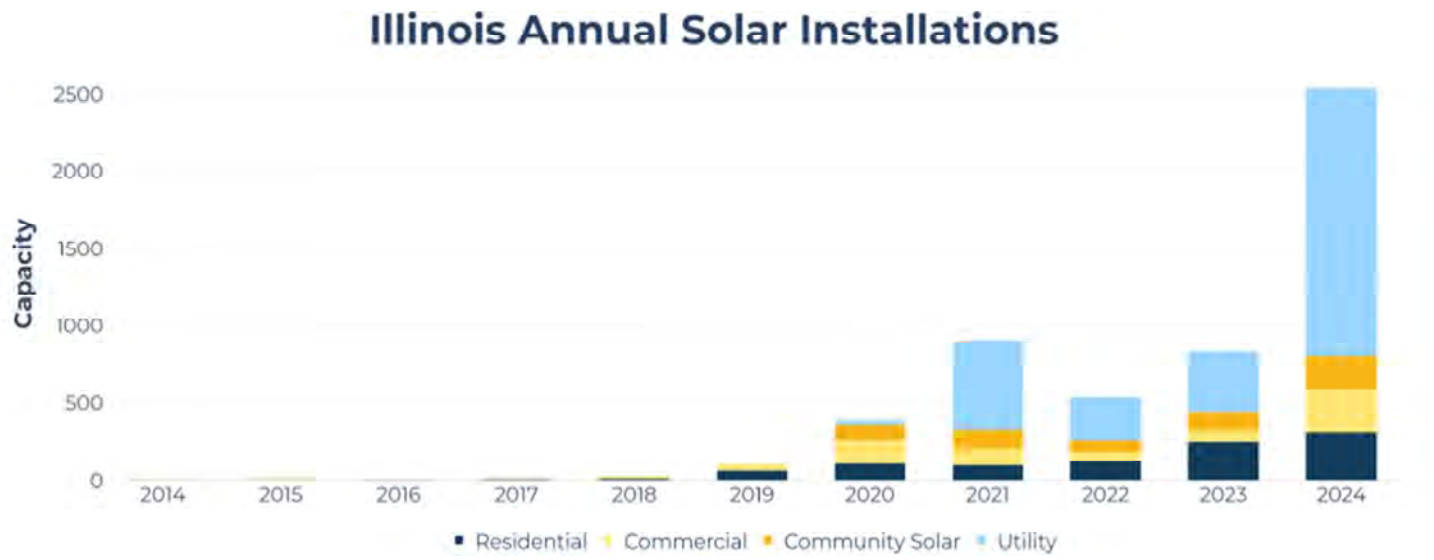


While early growth for community solar installations was led primarily by three key markets - New York, Minnesota, and Massachusetts - a growing list of states with community solar programs have helped diversify the market, creating large pipelines set to come to fruition over the next several years.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

ENERGY PRODUCTION IN ILLINOIS

As of the end of Q4 2024, Illinois has 5,441 MW of solar installed, ranking 11th 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 10,158 MW of solar proposed to be installed over the next five years.



Illinois has 10,158 MW AC of solar power planned for installation through December 2025 in 58 facilities across the state. Eighteen of the planned solar installations in Illinois are utility scale and total 1,349.3 MW AC, or approximately 94 percent of all planned installations. The largest new solar facility in Illinois will be a 1,200 MW AC utility scale installation projected to become operational in December 2027 in Lee County, which is being developed by Steward Creek Solar. The total planned solar facilities will increase solar power generation in the state by approximately 118 percent.

There are 40 community solar projects planned for the state of Illinois before the end of 2025, generating a total of 84.5 MW AC of power.

Illinois has fourteen utility scale solar facilities in operation, one of which, the Grand Ridge Solar Farm that we have studied and included in our report. The remaining utility scale solar facilities include:

- The 200 MW Prairie Wolf Solar Project, completed in November 2021;
- The 165.3 MW River Ferry Solar Project, completed in December 2023;
- The 149 MW Big River Solar Project, completed in August 2022;
- The 100 MW High Point Solar Project, completed in November 2021;
- The 99 MW Prairie State Solar Project, completed in July 2021;
- The 99 MW Dressor Plains Solar Project, completed in September 2021;
- The 70 MW Mulligan Solar Project, completed in July 2022;
- The 35 MW Earp Solar Project, completed in April 2024;

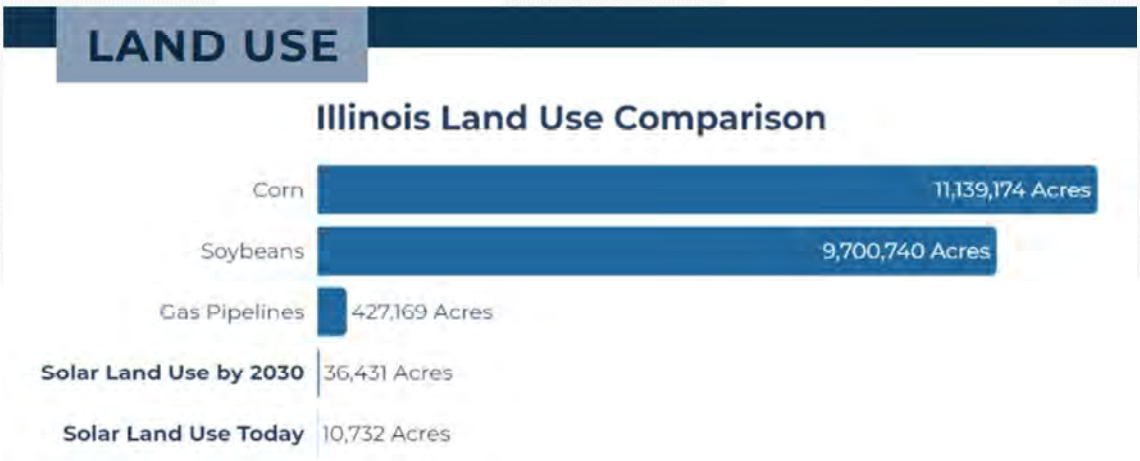
Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

- The 30 MW Prairie Creek Solar Project, completed in November 2023;
- The 20 MW DePue Holdings Solar Project, completed in February 2023;
- The 10 MW Northern Cardinal Solar Project, completed in February 2021,
- The 9.9 MW Belleville Solar Project, completed in September 2021;
- And the 9.0 MW Exelon Solar Chicago Project, completed in December 2009.

We spoke to the Supervisor of Assessments for each project to ask whether there have been any transactions or impacts on property values since the completion of the facility. Most Assessment Officers indicated that the project was so new that there was no data in which to study. Cindi Lotz of Fayette County, Illinois did indicate that the Dressor Plains Solar project "has not had any impact whatsoever" on adjacent property values. We have reviewed the areas surrounding each of these newly constructed facilities; as of the reporting date, there are not yet eligible transaction for us to develop an impact study on these projects for inclusion in our analysis.

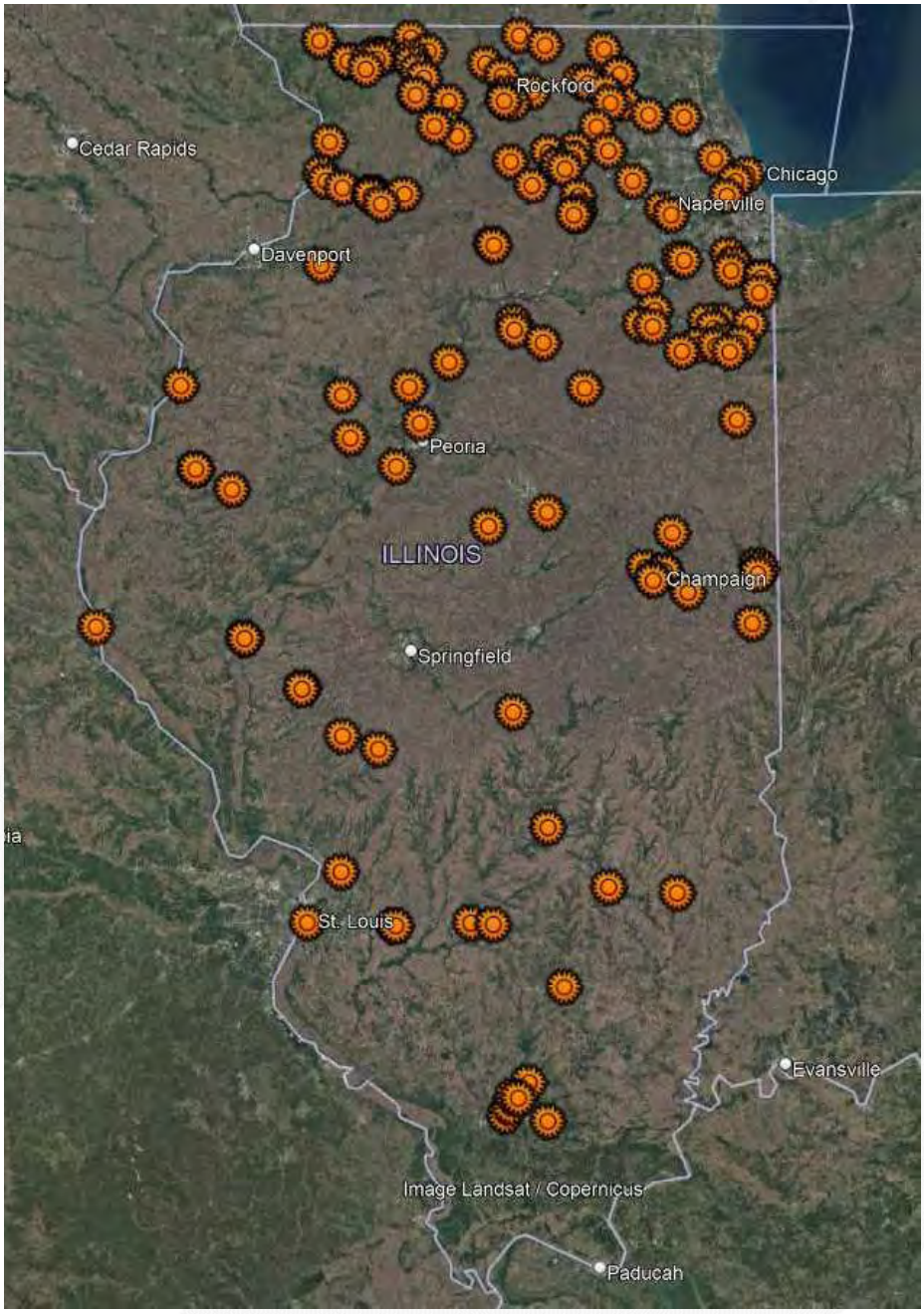
Illinois has seen considerable growth in solar production since the first project became operational in 2009. Of the 165 existing solar projects in Illinois, 12 were completed between 2009 and 2019. A further 46 solar projects were completed in 2020 alone, followed by 68 in 2021, 13 in 2022, 14 in 2023, and 12 through August 2024. The solar projects completed in the last five years account for 93% of the total solar projects in the state. Nevertheless, we were able to study four existing solar projects in Illinois, that had transactions after the completion of the solar project, Grand Ridge Solar, Freeport Solar, IGS Stockton DG Community Solar Garden and Pretzel Community Solar Garden, included in this report.

Solar accounts for only 10,732 acres in Illinois, a fraction of the 11.1 million acres used for corn production and 9.7 million acres used for soybeans. The following breaks down Illinois land usage including the projection for solar in the next five years.



Illinois is home to 5,975 solar related jobs, and 331 solar related companies, which includes 67 manufacturers, and 96 installers/developers. We have presented a map on the following page of existing community-scale solar projects, less than 5.0 MW, in Illinois.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Existing community-scale solar projects, less than 5.0 MW

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

APPRAISAL THEORY – ADAJCENT 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.

---

[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)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

---

[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)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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:

- 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 methodology remains objective, and the only adjustment required is for market conditions;[11] the analysis

[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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

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 re-financings 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 six academic reports that attempt to quantify the effect on property values due to proximity to solar. We have summarized them by publication date:

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

[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/.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 landowners 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 ("BNL"), 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 overwhelmingly majority of the transactions (in the states of CA, CT and MA), no impact was measured near large-scale photo-voltaic facilities or LSPV's. The authors of the study similarly released a webinar discussing the study, as well as key limitations of the study, as follows:

- The dataset is centered on relatively small projects in relatively urban areas... Our results should not be applied to larger projects, e.g., those >18 MW, and, of course projects built far from homes.
- [The] study did not consider site design, setbacks or landscaping features...
- Across the full dataset (all 6 states) only larger projects (greater than 12 acres) are correlated with a loss in house prices within 0.5 miles (compared to 2-4 miles away); BUT this analysis only applies to relatively small projects (90% are less than 35 acres/8 MW), so "large" is relative to the median of 12 acres.
- Only 6 states are included; therefore, the results would not necessarily apply outside the sample area.

[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."

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Given these limitations, we do not believe the study is overwhelmingly conclusive, and, if any, only presents limited data showing a rather small impact in certain areas. The states showing no impact reflect 68.6% of all the transactions studied.

Our review of the study revealed key questions that we believe limit the applicability of the study as a whole:

1. The study does not show the data for the largest of the solar facilities mapped and whether those reveal transactions that are consistent with the study's results (i.e., solar facilities greater than 8 MW in all six states). We would hypothesize that the largest of the facilities would show the greatest amount of impact; this is not expressed (and so likely not true). Further, our own studies of the largest facilities in Minnesota (the 100 MW North Star Solar Farm) rebut the study's results.
2. There was no effort by the authors to interpret whether other adjacent property next to solar facilities might also impact local residential values. This could include large commercial buildings, office towers, industrial developments or highways. This might have swayed the results.
3. Data results are somewhat contrary to common reason – for example, their conclusions indicate a negative impact in rural areas, insignificant impact in urban areas, but overwhelmingly positive results for "urban cluster" areas. This diverges from the theory that density and impact correlate.
4. Data results using similar methodology in the URI study reveal contrary results: while the URI study found no impact in rural communities, the BNL study indicates some very small degree of impact, and while the BNL study showed no impact in suburban areas, the URI did show a rather small impact. The results, therefore, are mixed and do not indicate consistent and measurable evidence.
5. Whether the results of -1.5% is applicable in terms of its relative degree. This is a rather small percentage and most appraisers and valuation professionals would find it difficult to profess this is of a magnitude that would be recognized in the market.

The BNL study does represent the largest study to date on the topic of solar farms and property values. We find that the majority of the data indicates no impact. The authors themselves suggest additional focus as follows: "more research is needed to understand the heterogeneity that we observe with respect to larger, agricultural and rural LSPVs [in the MN, NJ and NC contexts]. Here, surveys, qualitative research, mixed-methods, and case study-based approaches may indicate how neighbors of LSPVS engage differently with their nearby solar installations based on its size, land use, or the urbanicity of their home." CohnReznick agrees with the BNL suggestion – and covers specifically this request in our own studies within Minnesota and North Carolina, as well as several other solar farms of various sizes in various locations.

v. In April 2024 **Lawrence Berkeley National Lab**, published a report titled Perceptions of Large-Scale Solar Project Neighbors: Results From a National Survey.[16] Authored by Joseph Rand, Ben Hoen, Karl Hoesch, Sarah Mills, Robi Nilson, Doug Bassette and Jack White, the report is a summation of a nearly

[16] Rand Joseph, et al. Perceptions of Large-Scale Solar Project Neighbors: Results From a National Survey, Energy Markets & Policy, Berkeley Lab, April 2024, Perceptions of Large-Scale Solar Project Neighbors: Results From a National Survey | Energy Markets & Policy (lbl.gov).

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

1,000 resident survey. An opinion survey was sent to residents living within three miles of large-scale solar (LSS), and 984 responses were collected. The survey revealed that "***among LSS neighbors, 'positive' attitudes outnumber 'negative' by nearly a 3 to 1 margin.*** Looking across the full set of respondents that were aware of their local LSS project, 43% reported a 'positive' or 'very positive' attitude toward it, 42% were 'neutral', and 15% reported a 'negative' or 'very negative' attitude. 42% report that they would support additional LSS in their community, compared to 18% that would oppose it." Additionally, the report noted that "Roughly 1/3 of residents living within 3 miles of LSS projects did not know their local project existed. Those living closest to projects and respondents around the largest projects in our sample (>100 MW) tended to be more familiar with them, but even some respondents living within ½ mile were unaware."

vi. 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 projects 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".

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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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."

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."[17]

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.

[17] Chisago County Press: County Board Real Estate Update Shows No "Solar Effects" (11/03/2017)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

TECHNIQUE 2: PAIRED SALE ANALYSIS

SOLAR FARM 1: 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

Population Density (2022): 94 people per square mile (LaSalle County)

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 twenty individual 1-MW solar inverters and over 155,000 photovoltaic modules 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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%**

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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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, 5-7, 13, and 14 have no sales data. Therefore, Adjoining Properties 1,3, 5-7, 13, and 14 are excluded from further analysis.

Recall, the solar farm under analysis 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 Bedeker Family Gift Trust. John and Susan Bedeker are owners of the Adjoining Aroperty 1 which is adjacent. 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, and the 35.07 acre farm, which the Kmetz Trust retained ownership of that 35 acre farm. 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, which was comparing sales of properties proximate to the solar farm (Control Area) to the sales of adjoining properties after the completion of the solar farm project (Test Area). We were unable to compare any sales of adjoining properties that occurred prior to the announcement of the solar farm with the sales of the adjoining properties after the completion of the solar farm project as there were no adjoining properties that sold prior to the announcement of the solar farm, within a reasonable period of time.

Adjoining Property 12 (Test Area Sale) was considered for a paired sales analysis, and we analyzed this property as a single-family home use, which is 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 following table outlines the other important characteristics of Adjoining Property 12.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 Control Area Sale data through 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 table below and the following map present five Control Area Sales with greater than one acre of land 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.



Grand Ridge Solar: Test Sale Map

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

It is important to note that 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. 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 Adjacent Property 12 of 169 days. This is an indication that the marketability of the Test Area Sales was not negatively influenced by proximity to the Solar Farm. The Control Area Sales are comparable in most physical characteristics and bracket Adjoining Property 12 reasonably.

We analyzed the five Control Area Sales illustrated above and adjusted the Control Area Sales 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 on the following page.

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 slightly 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 (5 – 6 months) days on market compared to the control sales, which sold between 10 – 471 days on market (0 and 16 months) on market.

Noting no negative price differential, it does not appear that the Grand Ridge Solar Farm impacted the sales price of the Test Sale, Adjoining Property 12. This was confirmed by the real estate agent who marketed and sold this home

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 2: 2662 FREEPORT SOLAR CSG, STEPHENSON COUNTY, IL

Coordinates: Latitude 42.33941447101255, Longitude -89.6394781667045

PIN: 08-00-13-800-001

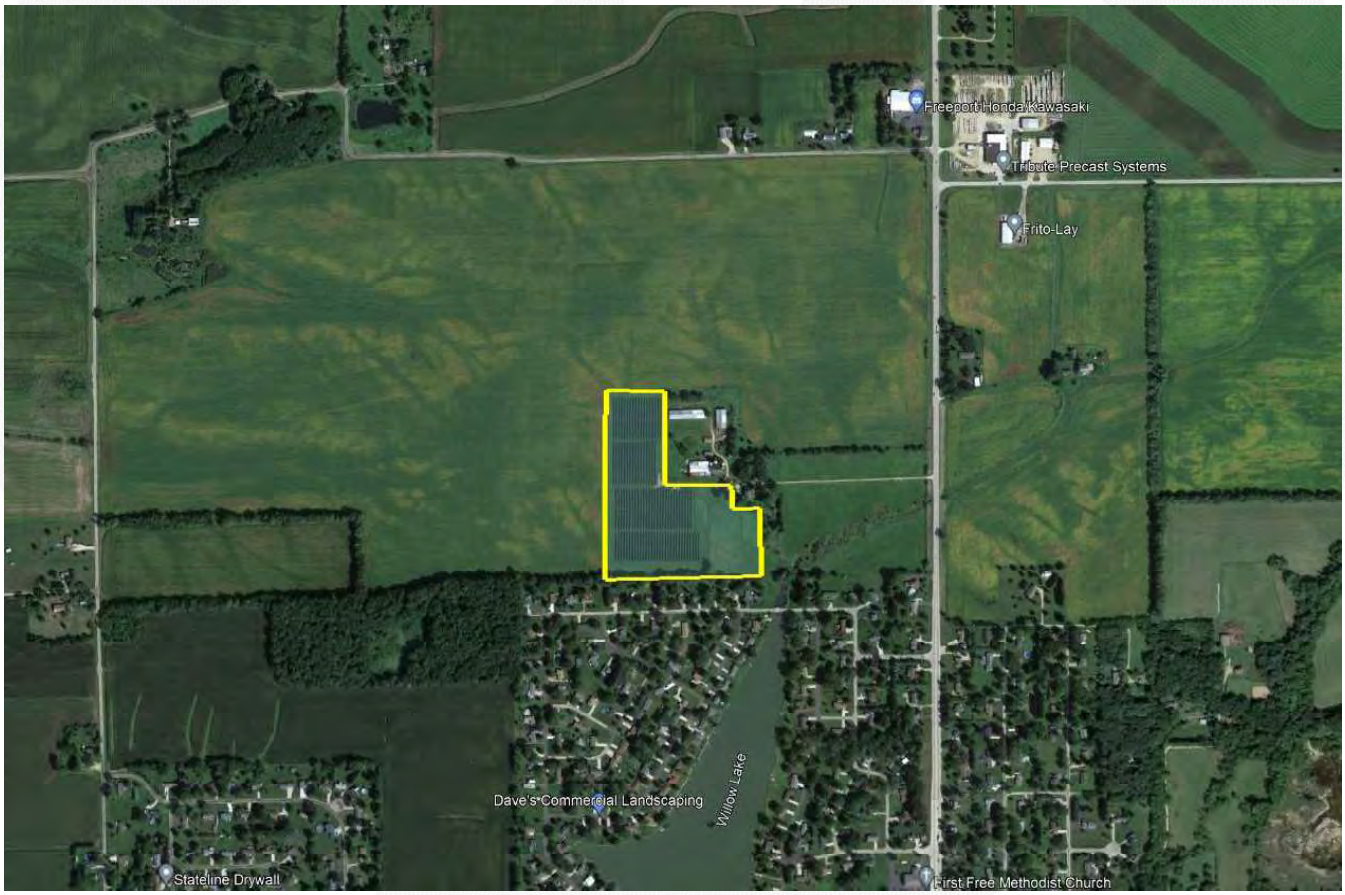
Total Land Size: 17.84 acres

Population Density (2022): 77 people per square mile (Stephenson County)

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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

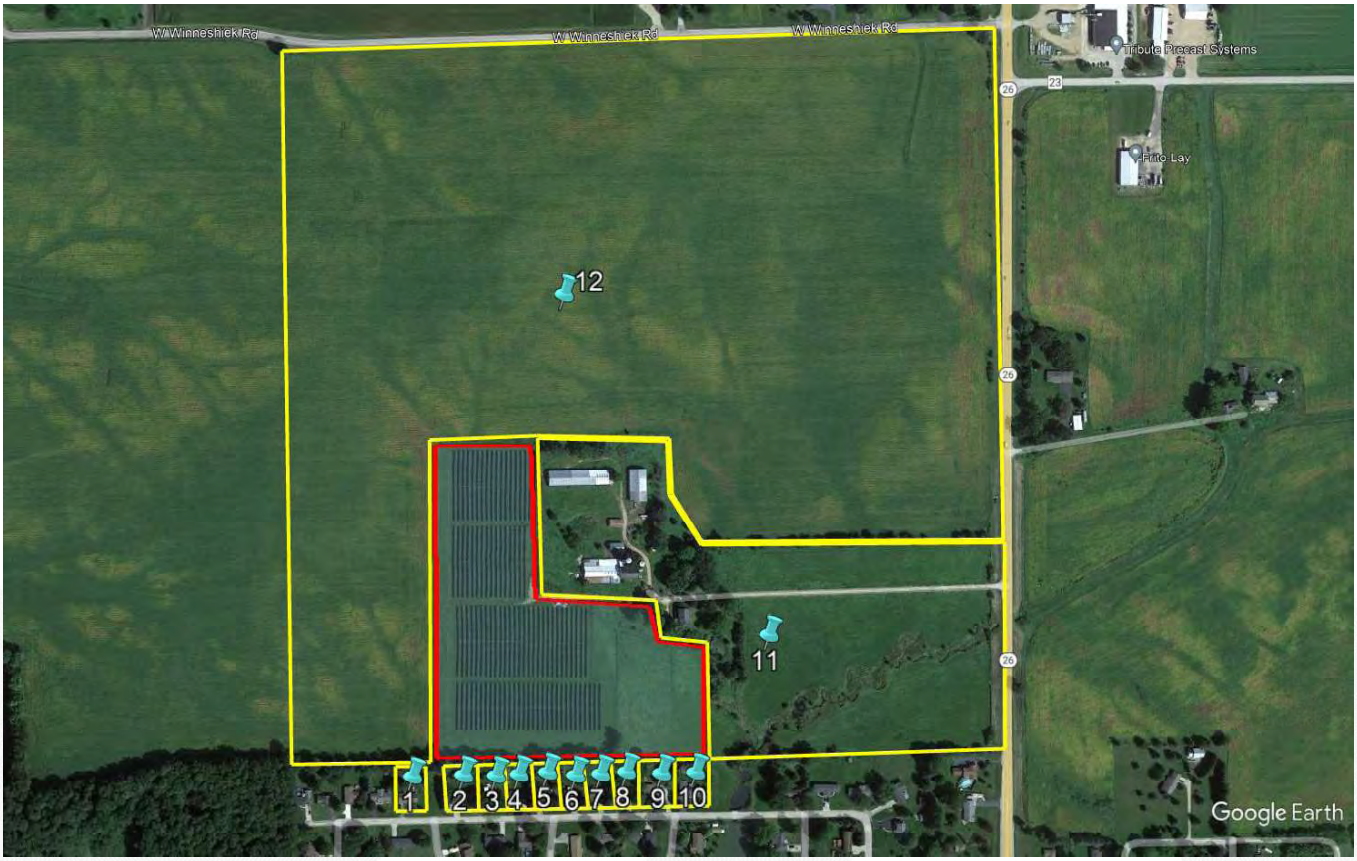
The 2662 Freeport Solar CSG project is one of 134 solar farms in Illinois and one of nine solar farms located within Stephenson County. The 2662 Freeport Solar CSG project is a similar size to all of the existing solar farms in Illinois with the exception of seven that are significantly larger and have 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



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.

Therefore, we have only considered Adjoining Properties 2 and 10 for paired sales analysis (identified as Test Area Sales 1 and 2 going forward).

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

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.*

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 3: PRETZEL CSG SOLAR FARM, STEPHENSON COUNTY, IL

Coordinates: Latitude 42.307119, Longitude -89.5981

PINs: 07-00-29-800-016

Total Land Size: Approximately 15 Acres

Population Density (2022): 77 people per square mile (Stephenson County)

Date Project Announced: August 2019

Date Project Completed: March 2022

Output: 2.0 MW AC



Approximate Pretzel CSG Solar boundaries outlined in yellow, aerial imagery provided by Google Earth dated May 2023

The Pretzel Community Solar Garden ("Pretzel Solar") use is located in Stephenson County, Illinois and in between East Currier Avenue to the north, East Stephenson Street to the south, North Henderson Road to the west and North Tower Road to the east.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The solar farm was developed by Cypress Creek Renewables and Clearway Energy and the improvements are owned by Pretzel Solar, LLC. The solar farm went into operation in March 2022 with a total of 640,000 square feet of solar panels. The 15-acre solar farm is located on a larger 135-acre parcel, which consists of vacant agricultural land.

The Surrounding Area: The Pretzel Solar installation is located in central Stephenson County, Illinois, just outside of the City of Freeport to the southwest, and approximately 30 miles northwest of the City of Rockford, in the northern portion of Illinois. The solar site is approximately five miles southeast of the City of Dubuque, Iowa, and 30 miles northwest of the City of Rockford. The solar site is approximately 40 miles east of the Iowa state border and 10 miles south of the Wisconsin state border.

The Pretzel Solar project is one of the 147 solar farms in Illinois and is one of twelve solar farms located within Stephenson County, Illinois. The Pretzel Solar project is the second largest solar farm in Stephenson County while the High Point Solar farm, which produces an output of 100 MW, is largest solar farm in Stephenson County.

The Immediate Area: The solar farm is located on an approximately 135-acre leased parcel in Stephenson County, while the solar arrays cover a 15-acre portion of the parcel, and is immediately surrounded by primarily agricultural land with residential homestead properties interspersed throughout the surrounding Project area.

To the southwest lies more densely concentrated residential properties in the City of Freeport, within one-mile from the Project site.

Real Estate Tax Info: Prior to the development of the solar farm one "child" parcel was created, from the "parent" parcel owned by the property owners of the leased site, to assess the Pretzel Solar project. The parcel on which the Pretzel Solar project is located was not created until the solar farm was constructed and no taxes were paid for the 2021 tax year. In 2022, after the completion of the solar farm, the assessed value of the participating parcel increased to $157,642 and real estate taxes increased to $2,658.

Pin	Acres
Stephenson County, IL	
07-00-29-800-016	134.9
Total	134.9

2021 Taxes Paid	2022 Taxes Paid	Tax Increase
$0	$2,658	-
$0	$2,658	-

2021 Assessed Value	2022 Assessed Value	Value Increase
$0	$157,642	-
$0	$157,642	-

The following maps display the parcels developed with the solar farm (outlined in yellow). Properties immediately adjoining the solar parcels (outlined in blue) are numbered for subsequent analysis. It is noted that the aerial imagery provided by Google Earth is dated May 2023.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Pretzel CSG – Adjoining Properties

PAIRED SALES ANALYSIS

We considered only one type of paired sales analysis, which was 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 identified Control Area Sale data through the Zillow.com database and verified these sales through county records and conversations with brokers and sellers. We have excluded sales that were not arm's length, such as REO sales or bank-owned properties, or those between related properties.

It is important to note the Control Area Sales are not adjoining to any solar farm, nor do they have a view of one from the propery. Therefore, the announcement nor the completion of the solar farm use could not have impacted the sales price of these properties.

Group 1 – Improved Single-Family Residential Properties

Adjoining Property 3 to the Pretzel Solar Project was considered for a paired sales anaylsis, and we have anaylzed this property as a single-family home use in Group 1. The property is a split level 1,900 sqaure foot home with an unfinished basement and a four car detached garage, located on a 0.73-acre lot that sold in December 2023. This property line is approximately 475 feet from the closest solar panel, and the improvements are approximately 490 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 3.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SUMMARY OF TEST AREA SALE Group 1 - Pretzel CSG										
Adj. Property #	Iress	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
3	603 E. Currier Road	$185,000	3	2.0	1941	1,900	1.5-Story SFH with Unfinished Basement and 4-Car Detached Garage	0.73	$97.37	Dec-23



Test Area Sale 1, aerial imagery provided by Google Earth, dated May 2023

We analyzed five Control Area Sales of single-family homes with similar construction and use that were located within Stephenson County, that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 1. The Control Area Sales for Group 1 are single-family homes located on lots in between 0.29 and 1.38-acres in size with two to three bedrooms and one and a half to three baths, consisting of between 1,553 square feet and 2,240 square feet of gross living area, and built between 1926 and 1951.

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 Pretzel Solar Project – Group 1 is presented below.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

CohnReznick Paired Sale Analysis Group 1		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$97.37
Control Area Sales (5)	No: Not adjoining solar farm	$90.96
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**7.04%**

Noting no negative marketing time differential, Test Area Sale 1 sold in 47 days, while the Control Area Sales sold between 22 and 51 days, with a median time on market of 35 days.

Noting no significant negative price differential, with Test Area Sale 1 having a slightly higher unit sale price than the Control Area Sales, it does not appear that the Pretzel installation impacted the sale price of the Test Area Sale.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 4: STOCKTON DG CSG SOLAR FARM, JO DAVIESS COUNTY, IL

Coordinates: Latitude 42.348183, Longitude -90.01124

PINs: 17-002-111-10, 17-002-111-20

Total Land Size: Approximately 23 Acres

Population Density (2023): 35 people per square mile (Jo Daviess County)

Date Project Construction Began: August 2020

Date Project Completed: December 2020

Output: 1.9 MW AC



Approximate Stockton DG CSG Solar boundaries outlined in yellow, aerial imagery provided by Google Earth dated May 2023

The Stockton Distributed Generation Community Solar Garden ("Stockton DG CSG" or "Stockton Solar") use is located in Jo Daviess County, Illinois. The solar farm is located in between Front Avenue to the north, Eugene Street to the south, S. Golf Road to the west and Ward Street to the east.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The current owner of the solar farm is IGS Stockton DG, LLC, who leases the land from Brewster Cheese Company operates a production facility on the same parcel as the Stockton Solar project, while IGS Energy developed the solar facility. The solar farm went into operation in December 2020 and provides energy for customers of Commonwealth Edison Co (Comed).

The Surrounding Area: The Stockton Solar installation is located in eastern Jo Daviess County, Illinois, in the southwest portion of the Village of Stockton, and approximately 50 miles northwest of the City of Rockford, in the northern portion of Ohio. The solar site is approximately 35 miles southeast of the City of Dubuque, Iowa, and 50 miles northwest of the City of Rockford. The solar site is approximately 20 miles east of the Iowa state border and 10 miles south of the Wisconsin state border.

The Stockton Solar project is one of the 147 solar farms in Illinois and is one of two solar farms located within Jo Daviess County, Illinois. The Stockton Solar project is the largest solar farm in Jo Daviess County with the Apple Canyon Lake Solar farm, which produces an output of 1.2 MW, is the second largest solar farm in Jo Daviess County.

The Immediate Area: The solar farm spans over 22 acres in Jo Daviess County and is immediately surrounded by primarily agricultural land with residential homestead properties interspersed throughout the surrounding Project area. The solar farm is situated on a parcel owned by Brewster Cheese Company, who operates a cheese production facility on the site.

To the northeast lies more densely concentrated residential properties in the Village of Stockton, within one-mile from the Project site.

Real Estate Tax Info: Prior to the development of the solar farm two "child" parcels were created, from the "parent" parcel owned by Brewster Cheese Company, to assess the Stockton Solar project. The parcels on which the Stockton Solar project is located were not created until the solar farm was constructed and no taxes were paid for the 2020 tax year. In 2021, after the completion of the solar farm, the assessed value of the participating parcels increased to $296,800 and real estate taxes increased to $26,874.

Pin	Acres
Jo Daviess County, IL	
17-002-111-10	11.3
17-002-111-20	11.3
Total	22.7

2020 Taxes Paid	2021 Taxes Paid	Tax Increase
$0	$13,437	-
$0	$13,437	-
$0	$26,874	-

2020 Assessed Value	2021 Assessed Value	Value Increase
$0	$148,400	-
$0	$148,400	-
$0	$296,800	-

The following maps display the parcels developed with the solar farm (outlined in yellow). Properties immediately adjoining the solar parcels (outlined in blue) are numbered for subsequent analysis. It is noted that the aerial imagery provided by Google Earth is dated May 2023.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Stockton DG CSG Solar – Adjoining Properties

PAIRED SALES ANALYSIS

In reviewing Adjoining Properties to study in a Paired Sales Analysis, one property and sale was considered but eliminated from further consideration as discussed below.

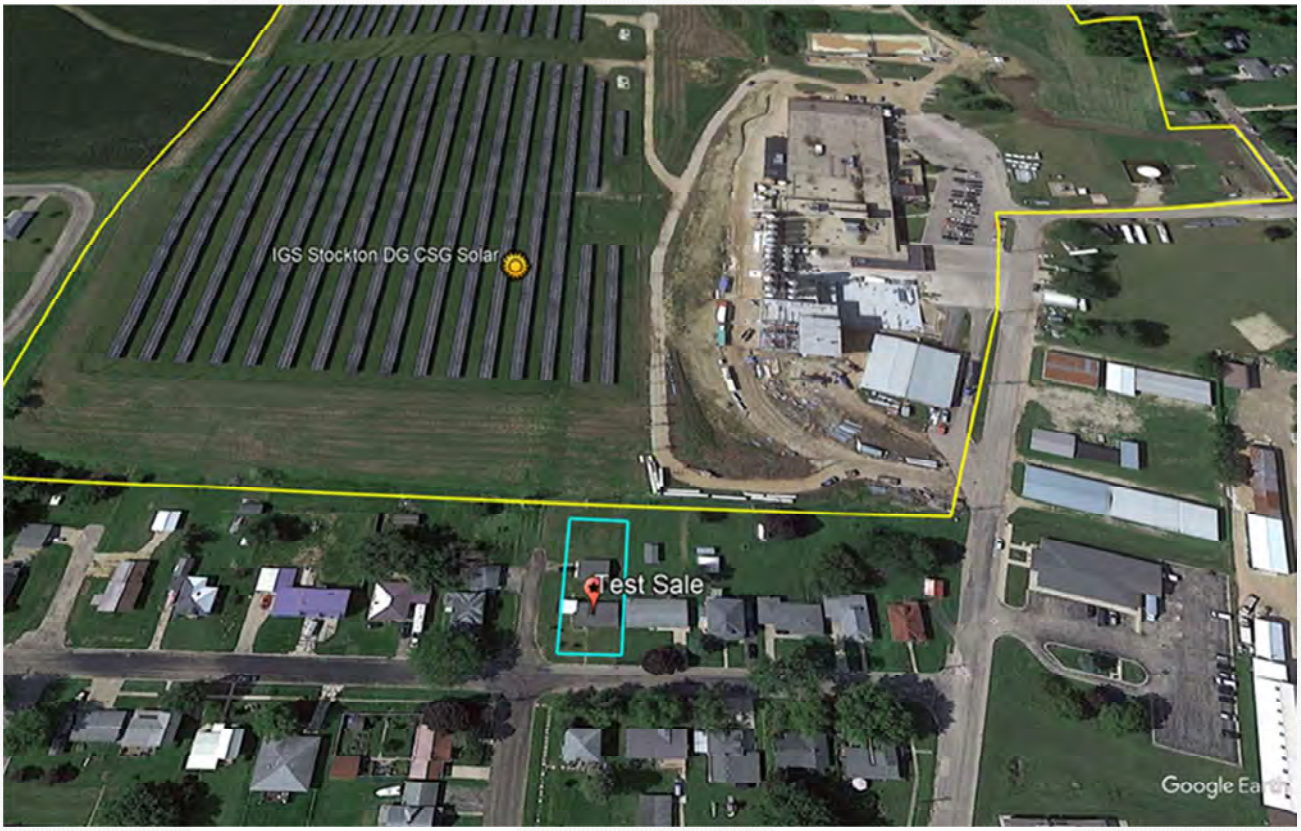
Adjoining Property 9 was sold on June 1, 2023 for $110,000 or $45.83 per square foot of living area, after being on the market. Adjoining Property 9 consisted of a 2-Story SFH with a 3-car attached garage built in 1954 on a 0.44-acre lot. We have not included the sale of Adjoining Property 9 as the transaction was non-arm's length.

Group 1 – Improved Single-Family Residential Properties

Adjoining Property 6 to the Stockton DG CSG Solar Project was considered for a paired sales anaylsis, and we have anaylzed this property as a single-family home use in Group 1. The property is a single-story 960 sqaure foot home with a two car detached garage and a storage shed, located on a 0.22-acre lot that sold in July 2021. This property line is approximately 200 feet from the closest solar panel, and the improvements are approximately 250 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 6.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SUMMARY OF TEST AREA SALE Group 1 - Stockton DG CSG Solar										
Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
1	228 S. Ward Street, Stockton	$48,500	2	1.0	1923	960	1-Story SFH with 2-Car Detached Garage and Storage Shed	0.22	$50.52	Jul-21



Test Area Sale 1, aerial imagery provided by Google Earth, dated September 2022

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Test Area Sale 1, Red Arrow indicating location of Stockton DG CSG Solar Farm

We analyzed ten Control Area Sales of single-family homes with similar construction and use that were located within the Village of Stockton, that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 1. The Control Area Sales for Group 1 are single-family homes located on lots in between 0.09 and 0.26-acres in size with one to three bedrooms and one to two baths, consisting of between 736 square feet and 1,416 square feet of gross living area, and built between 1910 and 1940.

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 Stockton DG CSG Solar Project – Group 1 is presented below.

CohnReznick Paired Sale Analysis IGS Stockton DG CSG		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price PSF**
Test Area Sale (1)	Adjoining solar farm	$50.52
Control Area Sales (10)	No: Not adjoining solar farm	$52.20
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**-3.33%**

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Noting no negative marketing time differential, Test Area Sale 1 sold in 74 days, while the Control Area Sales sold between 48 and 683 days, with a median time on market of 116 days.

The small differential between the Test Area Sale and Control Area Sales is within the range of normal market variace, and therefore it does not appear that the Stockton DG CSG installation impacted the sale price of the Test Area Sale.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 5: EXELON SOLAR CHICAGO, COOK COUNTY, IL

Coordinates: Latitude 41.675800, Longitude -87.651400

PINs: 25-28-203-003-8002

Total Land Size: Approximately 40.86 Acres

Population Density (2023): 3,200 people per square mile (Cook County)

Date Project Construction Began: March 2009

Date Project Completed: March 2010

Output: 9.0 MW AC



Approximate Exelon Solar Chicago boundaries outlined in yellow, aerial imagery provided by Google Earth dated May 2023

The Exelon Solar Chicago facility is located in Cook County, Illinois. The solar farm is bound by West 120th Street to the north, South Loomis Street to the west, a vacant land parcel just west of South Halsted Street to the east, and the Metra Tracks (Blue Island Metra Station) to the south.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The site is a former brownfield site and construction involved removing several toxic waste-filled 55 gallon drums and the removal of three underground oil storage tanks. The solar farm went into operation in December 2009 and provides energy for customers of Commonwealth Edison Co (Comed).

The Surrounding Area: The Exelon Solar Chicago facility is located in the southern section of Cook County, within the City of Chicago and is located approximately 13.5 miles south of the Chicago CBD, in the northeastern section of the State of Illinois. The solar site is approximately 6.5 miles west of the State of Indiana's border and approximately 57 miles south of the State of Wisconsin's border.

The Exelon Solar Chicago project is one of the 147 solar farms in Illinois and is one of five solar farms located within Cook County, Illinois. The Exelon Solar Chicago project is the largest solar farm in Cook County with several solar farms tied for second, producing an output of 2.0 MW each.

The Immediate Area: The solar farm spans over approximately 40.86 acres in Cook County and is immediately surrounded by residential homestead properties to the south and west with a mixture of commercial / industrial buildings and vacant land to the north and east. The solar farm is situated on a parcel owned by Barclay Damon, LLP with no additional improvements on-site.

The following maps display the parcels developed with the solar farm (outlined in red). Properties immediately adjoining the solar parcels (outlined in blue) are numbered for subsequent analysis.



Exelon Solar Chicago – Adjoining Properties

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

PAIRED SALES ANALYSIS

Group 1 – Improved Single-Family Residential Properties

Adjoining Property 23 to the Exelon Solar Chicago Solar Project was considered for a paired sales anaylsis, and we have anaylzed this property as a single-family home use in Group 1. The property is a single-story 700 sqaure foot home with a one car detached garage, located on a 0.07-acre lot that sold in March 2022. This property line is approximately 95 feet from the closest solar panel, and the improvements are approximately 120 feet from the closest solar panel.

Per discussions with the listing agent, Jaime Birks (708-259-6242), this transaction was an arms-length transaction with a sale price of $119,000 and no sale conditions that affected the sale price. The building was move-in ready and the buyers intended to owner-occupy the property. She stated that she does not recall any influence one way or another associated with the solar farm.

The following table outlines the other important characteristics of Adjoining Property 23.

SUMMARY OF TEST AREA SALE
Group 1 - Exelon Solar

Property #	Address	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price	Sale Price / SF	Sale Date
23	12044 S Loomis St	1	1.0	1914	700	1-Story SFH with 1-Car Detached Garage	0.07	119,000	$170.00	Mar-22



Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Test Area Sale 1, aerial imagery provided by Google Earth, dated May 2023





Test Area Sale 1, Red Arrow indicating location of Exelon Solar Chicago Solar Farm

We analyzed 17 Control Area Sales of single-family homes with similar construction and use that were located within the West Pullan neighborhood, that sold within 12 months from the sale date of the Test Area Sale in Group 1. The Control Area Sales for Group 1 are single-family homes located on lots in between 0.07 and 0.11-acres in size with two bedrooms and one baths, consisting of between 680 square feet and 960 square feet of gross living area, and built between 1908 and 1922.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 Exelon Solar Project – Group 1 is presented below.

CohnReznick Paired Sale Analysis Exelon Solar		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price PSF**
Test Area Sale (1)	Adjoining solar farm	$170.00
Control Area Sales (17)	No: Not adjoining solar farm	$169.30
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**0.41%**

Noting no negative marketing time differential, Test Area Sale 1 sold in 206 days, while the Control Area Sales sold between 50 and 223 days, with a median time on market of 114 days.

The small differential between the Test Area Sale and Control Area Sales is within the range of normal market variace, and therefore it does not appear that the Exelon Solar installation impacted the sale price of the Test Area Sale.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 6: O'BRIEN SOLAR FIELDS, DANE COUNTY, WISCONSIN

Coordinates: Latitude 42.997665, Longitude -89.45895

PINs: 0609-172-3000-2, 0609-172-1000-2

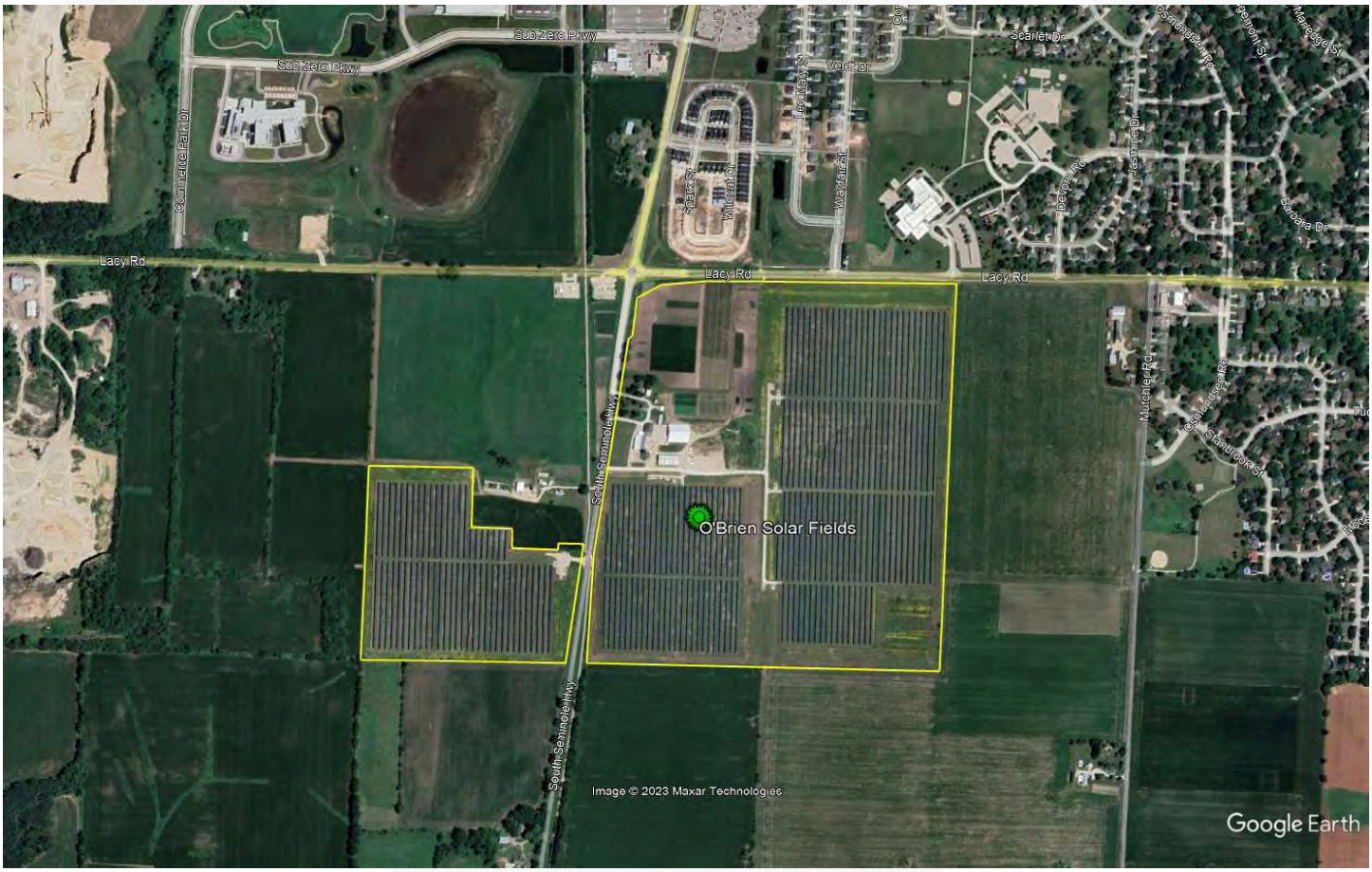
Population Density (2023): 1,682 people per square mile (3-mile radius)

Total Land Size: Approximately 171 acres

Date Project Announced: July 2019

Date Project Completed: June 2021

Output: 22.1 MW AC



Approximate O'Brien Solar Fields boundaries outlined in yellow, aerial imagery provided by Google Earth dated July 2022

The O'Brien Solar Fields project is located in Dane County, Wisconsin and is in between Lacy Road to the north, Whalen Road to the south, and bisected by South Seminole Highway.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The current owner of the solar farm is Madison Gas & Electric Company (MGE) while EDF Renewables developed the solar facility. The electricity generated from the project is being offered by MGE to local businesses, under MGE's Renewable Energy Rider program, to power all or a portion of their businesses. The Renewable Energy Rider program allows MGE to provide all or a significant portion of electricity from renewable generation to businesses interested in utilizing renewable energy, subject to customers with a minimum electric demand level of 200 kW. The solar farm went into operation in June 2021 and is comprised of nearly 60,000 panels.

The Surrounding Area: The O'Brien Solar Fields installation is located in central Dane County, Wisconsin, approximately five miles southwest of the City of Madison, in the south-central portion of Wisconsin. Dane County, the second most populous county in Wisconsin, is home to the Wisconsin State Capital, the City of Madison. The solar site is approximately 75 miles west of the City of Milwaukee, 120 miles northwest of the City of Chicago, Illinois and 125 miles southwest of the City of Green Bay.

The O'Brien Solar Fields project is one of the 81 solar farms in Wisconsin and is one of eight solar farms located within Dane County, Wisconsin. The state now has sixteen solar farms the produce 50 MW or more, with the largest solar farm in the state being the Grant County Solar farm in Grant County which produces an output of 200 MW.

The Immediate Area: The solar farm spans over 170 acres in Dane County and is immediately surrounded by primarily agricultural land with residential properties to the north and a middle school to the northeast. Further to the northeast lies more densely concentrated residential, commercial properties, and the University of Wisconsin-Madison, in the City of Madison, approximately five miles from the Project site.

Real Estate Tax Info: In Dane County, Wisconsin, real property is assessed on annual basis as of January 1 each year. The Notice of Assessment is typically sent out to property owners in March of each year and Tax Bills are send the third Monday of December each year. Property tax bills are then due the following January 31st and July 31st for the preceding tax year.

The two participating parcels that make up the O'Brien Solar Fields site were formerly split into six parcels, "parent parcels", that have since been combined as of the 2023 tax year. The data presented below is from the six "parent parcels" from the 2020 and 2021 tax years.

Pin	Acres	2020 Taxes Paid	2021 Taxes Paid	Tax Increase	2020 Assessed Value	2021 Assessed Value	Value Increase
Dane County, WI							
0609-172-3000-2	35.061						
0609-172-9000-5		$5,109	$9,153	79.15%	$231,400	$402,300	73.85%
0609-172-9610-7		-	-	-	-	-	-
0609-172-1000-2	136.056						
0609-171-8500-3		$265	$0	-100.00%	$11,800	$0	-100.00%
0609-171-9000-6		$272	$0	-100.00%	$12,100	$0	-100.00%
0609-172-8000-7		$15,045	$15,449	2.69%	$663,300	$663,300	0.00%
0609-172-9500-0		$216	$0	-100.00%	$9,600	$0	-100.00%
Total	171.117	$20,907	$24,602	17.67%	$928,200	$1,065,600	14.80%

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

In the State of Wisconsin, solar arrays with above 50 MW of generation capacity are exempt from local property taxes. Instead, solar farms pay a license fee to the State who then distributes payments to the county and township, city, or village in which the solar farm is located to compensate the local governments. Under current law, the local government receive a combined $5,000 per MW of solar capacity annually from the State once the project reaches commercial operation. A formula for how these payments are distributed between counties and towns, villages or cities is presented below.

Local Jurisdiction	Jurisdiction	Percentage	Amount Paid Annually per MW
System is located in a city or village	City/Village	56.70%	$2,833
	County	43.30%	$2,167
System is located in a town	Town	43.30%	$2,167
	County	56.70%	$2,833

The following maps display the parcels developed with the solar farm (outlined in yellow). Properties immediately adjoining the solar parcels (outlined in blue) are numbered for subsequent analysis. It is noted that the aerial imagery provided by Google Earth is dated July 2022.



O'Brien Solar Fields – Adjoining Properties

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



O'Brien Solar Fields – Adjoining Properties

PAIRED SALES ANALYSIS

In reviewing Adjoining Properties to study in a Paired Sales Analysis, one sale of the four identified was considered but eliminated from further consideration as discussed below.

Adjoining Property 7 is comprised of 40-acres of land formerly used as an agriculture land use that sold to Emerson College in Septmeber 2022 for $734,000. Emerson College has plans to develop an athletic complex on the land that is adjacent to the O'Brien Solar Fields. As the land was purchased by Emerson College, the zoning changed from Agricultural to exempt, per the Dane County Zoning Office. As the property is not subject to zoning after being a former agricultural use, we have not included the sale of Adjoining Property 7 in our analysis due to the unique nature of the property's allowable uses and lack of comparable land sales that are exempt to zoning in the surrounding area.

Group 1 – Improved Single-Family Residential Properties

Adjoining Property 23 to the O'Brien Solar Fields Project was considered for a paired sales anaylsis, and we have anaylzed this property as a single-family home use in Group 1. The property is a two-story, freestanding, 1,605 sqaure foot home with a full unfinished basement and attached garage, located on a 0.10-acre lot that sold in April 2023. The property is located within the Crescent Crossing subdivision, a new development

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

consisting of 117 single-family homes with original home plans. Crescent Crossing is made up of both attached duplexes and freestanding single-family homes. This property line is approximately 495 feet from the closest solar panel, and the improvements are approximately 530 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 23.

SUMMARY OF TEST AREA SALE Group 1 - O'Brien Solar Fields										
Adj .Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
23	2473 Wildcat Drive, Fitchburg	$419,900	3	2.5	2023	1,605	2-Story SFH with Unfinished Basement and Attached Garage	0.10	$261.62	Apr-23

We analyzed 45 Control Area Sales of single-family homes with similar construction and use that were located within the Crescent Crossing subdivision, that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 1. The Control Area Sales for Group 1 are freestanding single-family homes located on lots less than 0.5-acres in size with three bedrooms and two and a half baths, consisting of between 1,516 square feet and 1,632 square feet of gross living area, and built between 2021 and 2023. The Control Area Sales also have attached garage parking and unfinished basements.

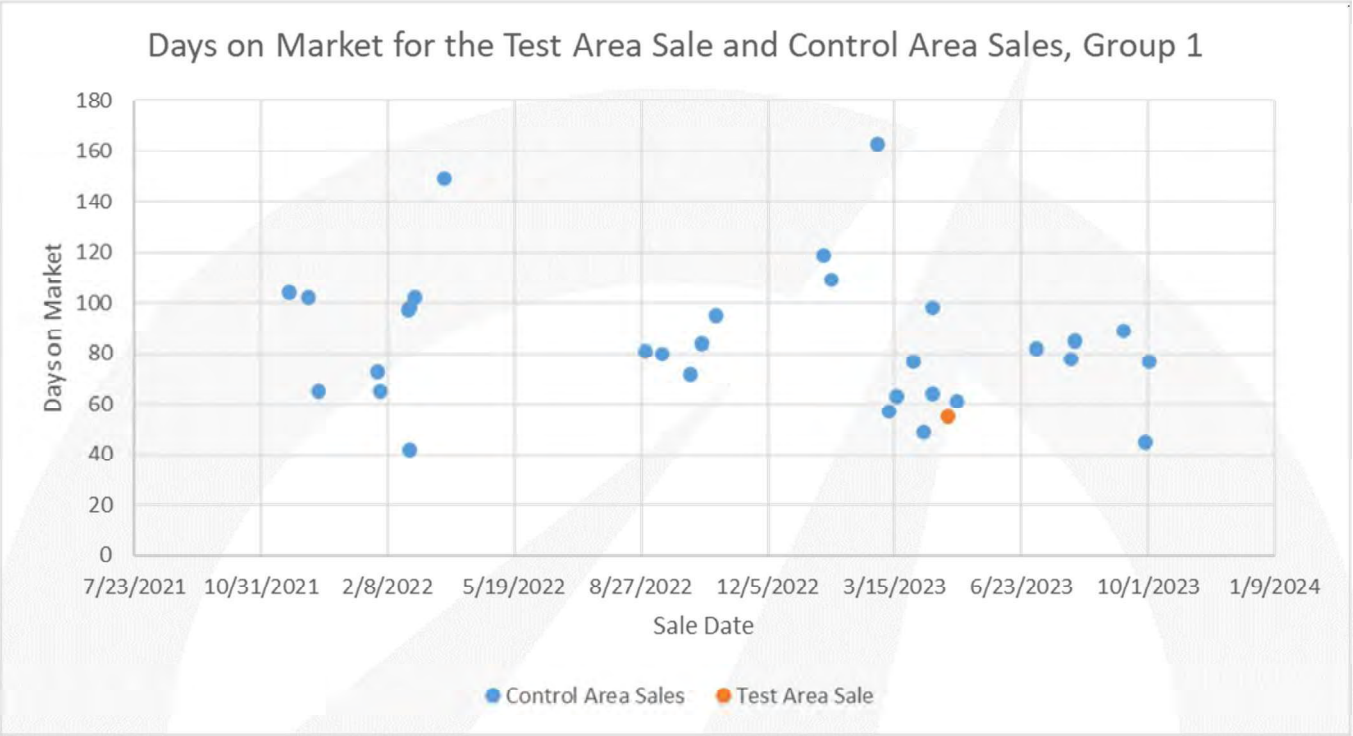
The Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The result of our analysis for the O'Brien Solar Fields – Group 1 is presented below.

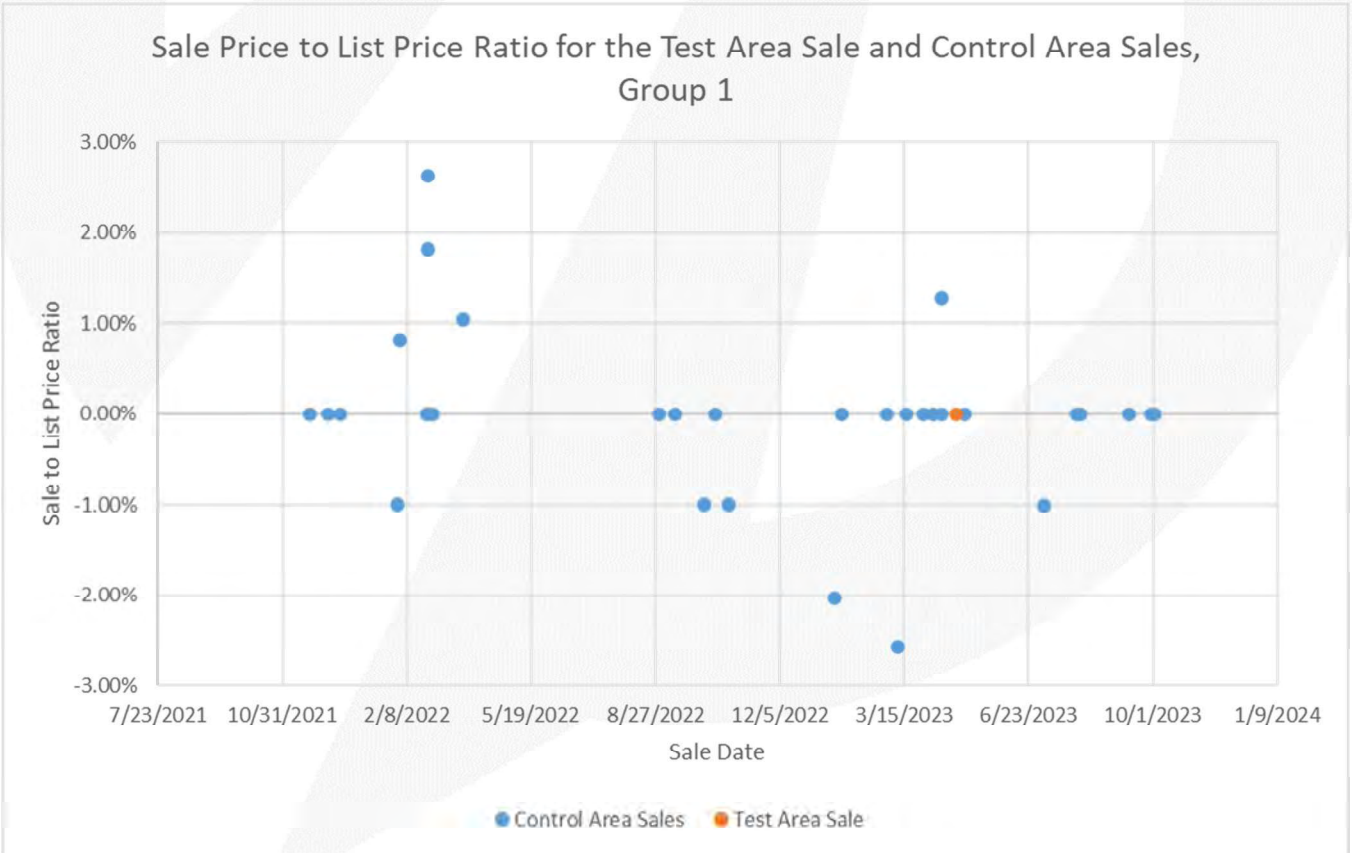
CohnReznick Paired Sale Analysis O'Brien Solar Fields - Group 1		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$261.62
Control Area Sales (45)	No: Not adjoining solar farm	$268.41
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**-2.53%**

Noting no negative marketing time differential, Adjoining Property 23 sold in 55 days, while the Control Area Sales sold between 42 and 163 days, with a median time on market of 82 days. Additionally, Adjoining Property 23 sold for its' listing price while the Control Area Sales sold for between 2.56 percent below to 2.63 percent above their listing price.

Noting minimal negative price differential, with Test Area Sale 1 having a slightly lower unit sale price than the Control Area Sales, it does not appear that the O'Brien Solar Fields had any negative impact on the sale of the Test Area Sale.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.





Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Crescent Crossing Subdivision Map, Test Area Sale 1, Adjoining Property 23 (Lot 19) is outlined in yellow above; O'Brien Solar Fields is located adjacent to the southeast as indicated by the red arrow above.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Group 2 – Improved Single-Family Residential Properties

Adjoining Property 25 to the O'Brien Solar Fields project was considered for a paired sales analysis, and we have analyzed this property as single-family home use in Group 2. The property is a freestanding, two-story 2,946 square foot home with an attached garage and unfinished basement, located on a 0.25-acre lot and sold in March 2023. The proprety is located within the Stoner Prairie subdivision, a new development consisting of 135 single-family homes. The Stoner Prairie subdivision offers various standard floor plans and features, that can be altered to their preferences, allowing homebuyers ready-to-go properties for quick move-ins. The improvements on this property are located approximately 515 feet to the nearest solar panel while the property line is approximately 465 feet to the nearest solar panel. The following table outlines the other important characteristics of Adjoining Property 25.

SUMMARY OF TEST AREA SALE Group 2 - O'Brien Solar Fields										
Adj. Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
25	2713 Leo Mary Street	$737,200	3	2.5	2023	2,946	2-Story SFH with Attached Garage and Unfinished Basement	0.25	$250.24	Mar-23

We analyzed 22 Control Area Sales of single-family homes with similar construction and use that were located within the Stoner Prairie subdivision, that sold within a reasonable time frame from the sale dates of the Test Area Sales in Group 2. The Control Area Sales for Group 2 are single-family homes located on lots less than 0.5-acres in size with three to four bedrooms and two and a half to three baths, consisting of between 2,483 square feet and 3,250 square feet of gross living area, and built between 2021 and 2023. The Control Area Sales also have additional improvements such as attached garage parking and unfinished basements.

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 O'Brien Solar Fields Project – Group 2 is presented below.

CohnReznick Paired Sale Analysis O'Brien Solar Fields - Group 2		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$250.24
Control Area Sales (22)	No: Not adjoining solar farm	$247.38
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**1.16%**

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Noting no negative price differential, it does not appear that the O'Brien Solar Fields use impacted the sale of the Test Area Sale, Adjoining Property 25.

The homes within the Stoner Prairie subdivision are primarily sold directly to the homebuyer, who can select a base floor plan and make slight modifications to their liking. As such, a majority of the control area home sales were not openly marketed, which is also the case for Adjoining Property 25.

Group 3 – Improved Single-Family Residential Properties

Adjoining Property 27 to the O'Brien Solar Fields project was considered for a paired sales analysis, and we have analyzed this property as single-family home use in Group 2. The property is a freestanding, two-story 3,698 square foot home with an attached garage and unfinished basement, located on a 0.24-acre lot and sold in May 2023. The proprety is also located within the Stoner Prairie subdivision, a new development consisting of 135 single-family homes. The Stoner Prairie subdivision offers various standard floor plans and features, that can be altered to their preferences, allowing homebuyers ready-to-go properties for quick move-ins. The improvements on this property are located approximately 470 feet to the nearest solar panel while the property line is approximately 420 feet to the nearest solar panel. The following table outlines the other important characteristics of Adjoining Property 27.

SUMMARY OF TEST AREA SALE Group 3 - O'Brien Solar Fields										
Adj. Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
27	2705 Leo Mary Street	$765,774	5	4.5	2023	3,698	2-Story SFH with Attached Garage and Unfinished Basement	0.24	$207.08	May-23

We analyzed 4 Control Area Sales of single-family homes with similar construction and use that were located within the Stoner Prairie subdivision, that sold within a reasonable time frame from the sale dates of the Test Area Sales in Group 3. The Control Area Sales for Group 3 are single-family homes located on lots less than 0.5-acres in size with four to five bedrooms and two and a half to three and a half baths, consisting of between 3,206 square feet and 3,925 square feet of gross living area, and built between 2021 and 2022. The Control Area Sales also have additional improvements such as attached garage parking, unfinished basements and partially finished basements.

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 O'Brien Solar Fields Project – Group 3 is presented below.

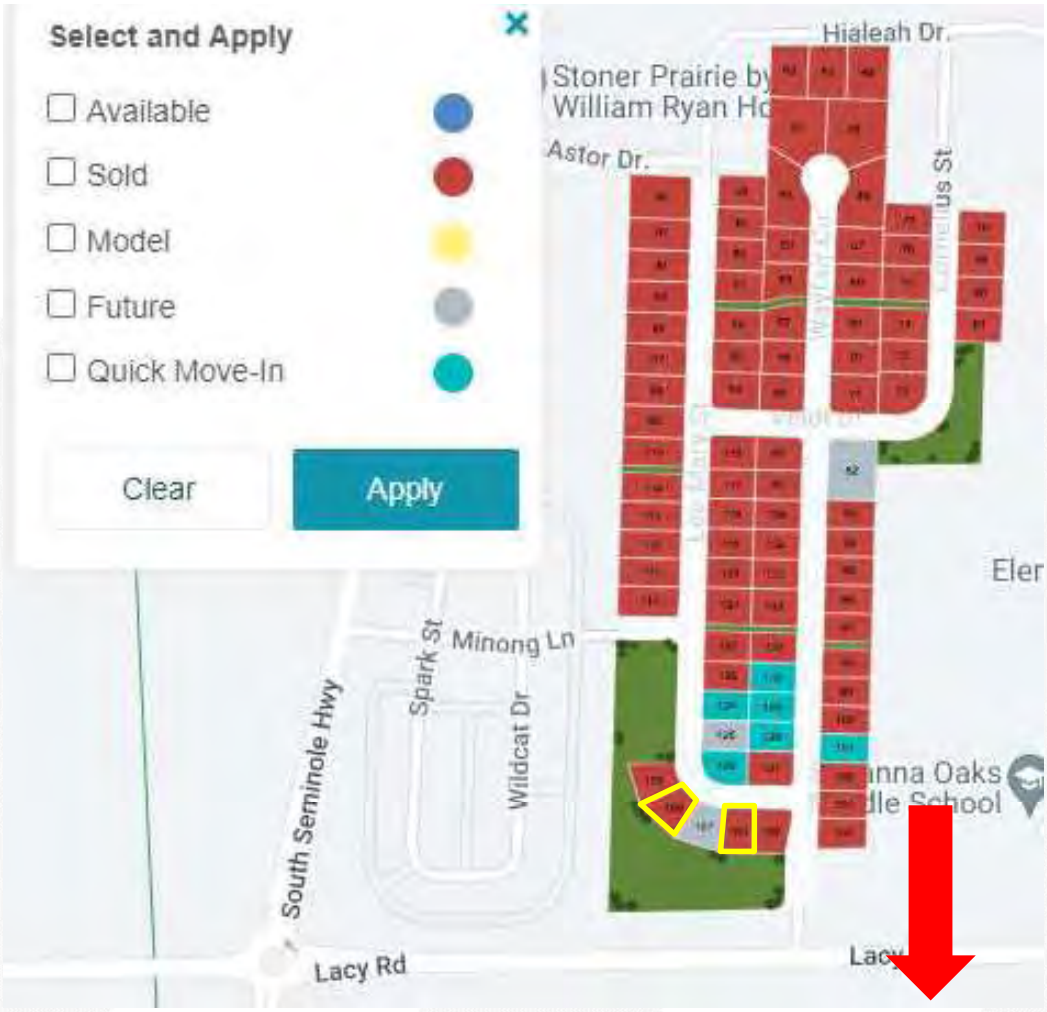
Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

CohnReznick Paired Sale Analysis O'Brien Solar Fields - Group 3		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$207.08
Control Area Sales (4)	No: Not adjoining solar farm	$206.42
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**0.32%**

Noting no negative price differential, it does not appear that the O'Brien Solar Fields use impacted the sale of the Test Area Sale, Adjoining Property 27.

The homes within the Stoner Prairie subdivision are primarily sold directly to the homebuyer, who can select a base floor plan and make slight modifications to their liking. As such, a majority of the control area home sales were not openly marketed, which is also the case for Adjoining Property 27.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Stoner Prairie Subdivision Map, Test Area Sales 2 & 3, Adjoining Properties 25 & 27 are outlined in yellow above; O'Brien Solar Fields is located adjacent to the south as indicated by the red arrow above.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 7: 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

Population Density (2022): 2,406 people per square mile (Marion County)

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 that contains all 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.

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.

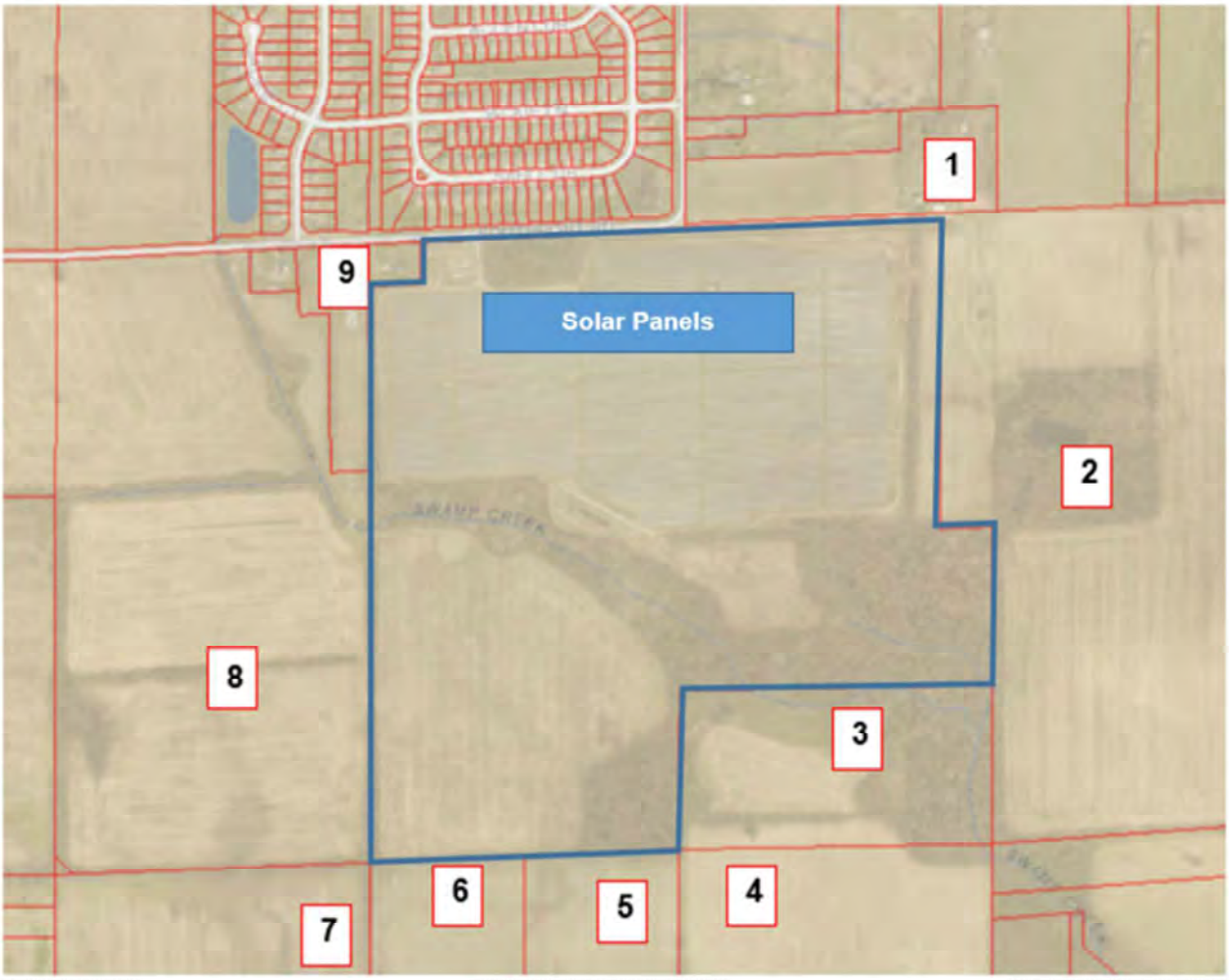
PIN	Acres
Marion County, IN	
49-13-13-113-001.000-200	129.04
TOTAL	**129.04**

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%**

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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

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 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 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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

In analyzing agricultural land sales for Control Area Sales with similar characteristics to Adjoining Property 12, 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 table below, and the map on the following page present the 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.

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,*[18] 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 below.

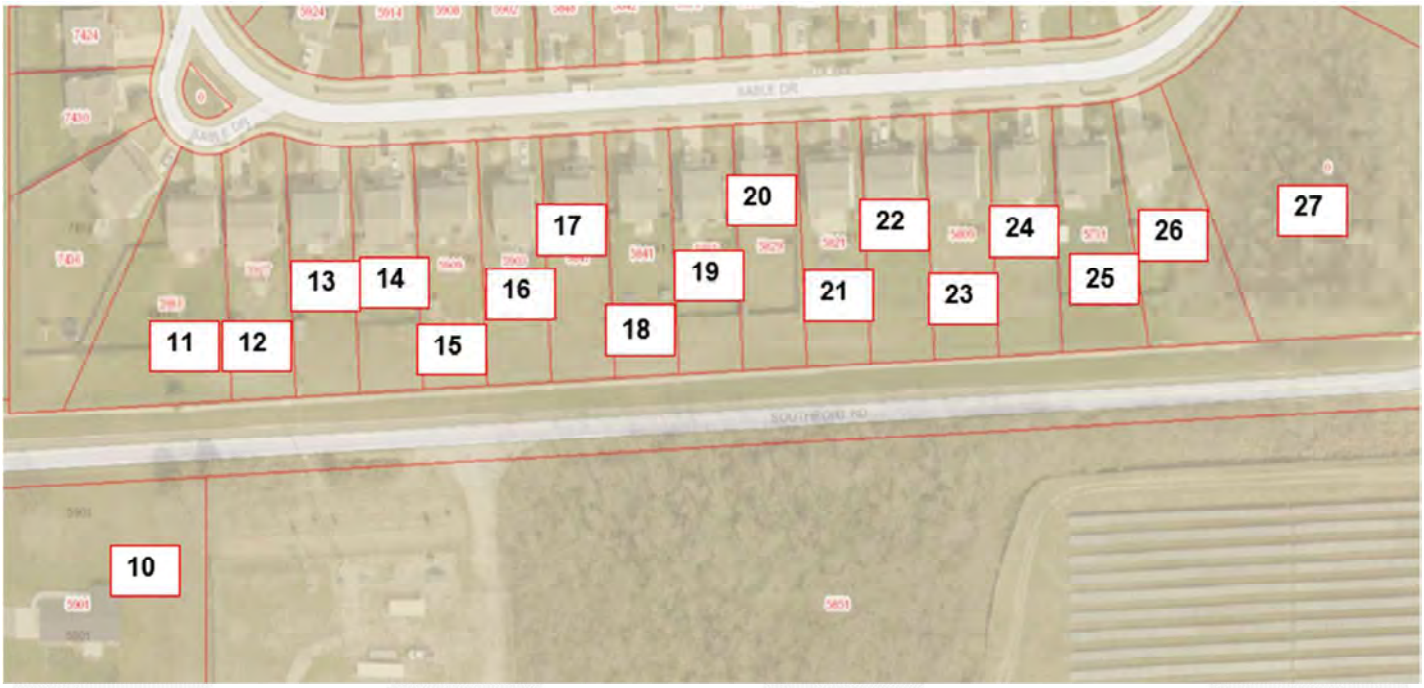
[18] https://www.landsalesbulletin.com/

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 values.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Dominion Indy III - 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.

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 between typically motivated buyers and sellers.

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.

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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 and are summarized in the table below and shown on the map on the following page.

Group 3

For Group 3 (sales 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.

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 on the following page.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 sales for Group 2 sold between 18 and 75 days on market (0-3months, while the control sales for Group 2 sold between 2 and 649 days on market (0-23 months). The rest sales for Group 3 sold between 3 and 75 days on market (0-3 months), while the control sales for 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

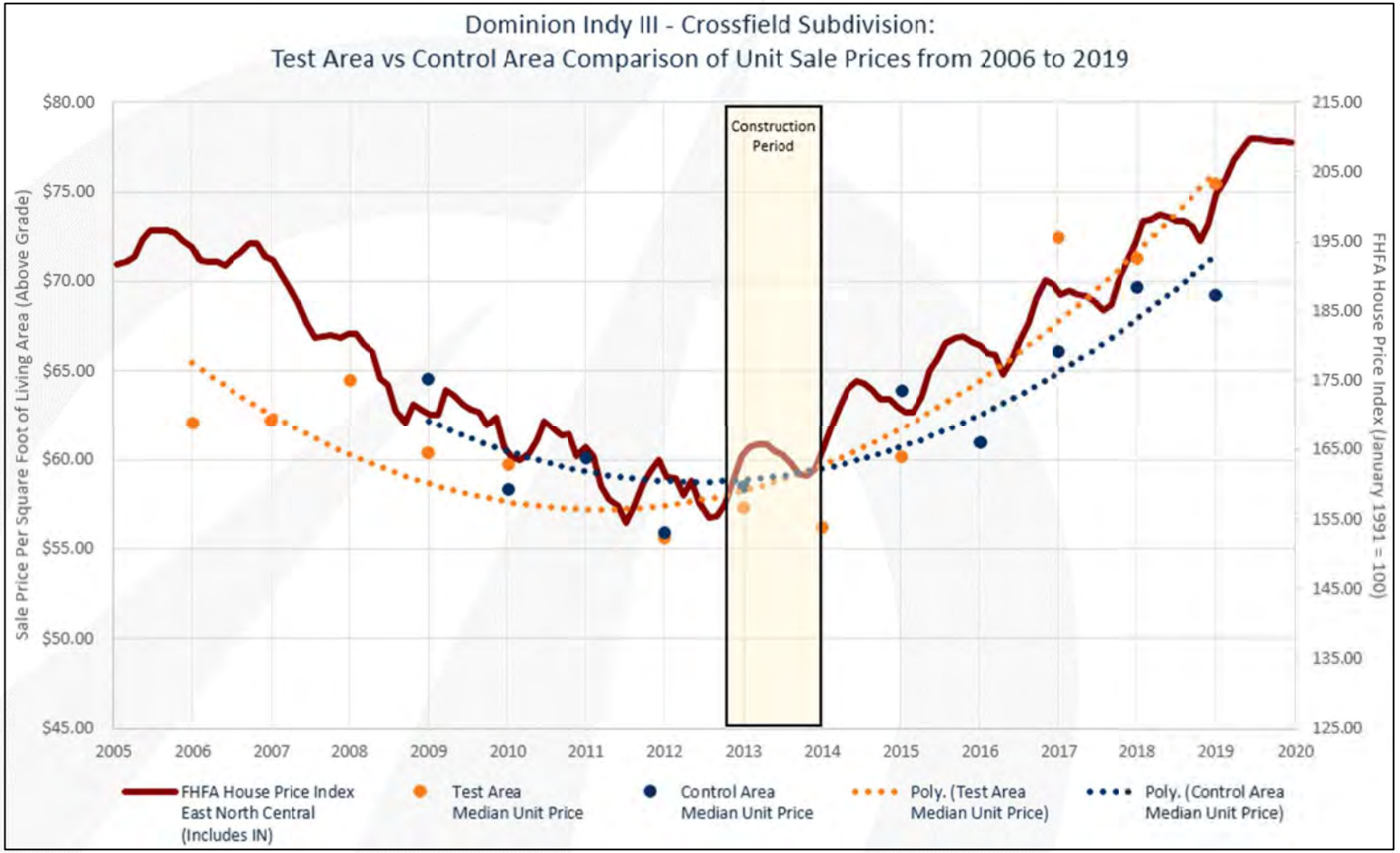
- The Before the Announcement of the solar farm period is from 2006 to July, 2012. The After Construction of the solar farm period is from December 2013 to 2019.
- 25 Test Area Sales were sold from 2006 to 2019 and 46 Control Area Sales sold from 2008 to 2019.
    - The Test Area Sales are homes located 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Analysis of Before Announcement and After Construction of the Dominion Indy III Solar Farm



Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 8: 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

Population Density (2022): 418 people per square mile (Porter County)

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.

The map on the following page 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Portage Solar Farm - Adjoining Properties

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Portage Solar Farm - Adjoining Properties

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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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%**

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 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.

The result of our analysis for Group 2 is presented below.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 9: SPRING MILL SOLAR, LAWRENCE COUNTY, INDIANA

Coordinates: Latitude 38.709545, Longitude -89.46968

PINs: 47-14-12-800-078.019-004

Population Density, Lawrence County (2023): 100 people per square mile

Total Land Size: 8.56-acres

Date Project Announced: N/A

Date Project Completed: September 2017

Output: 1.1 MW AC



Approximate Spring Mill Solar boundaries outlined in yellow, aerial imagery provided by Google Earth dated October 2019

The Spring Mill Solar project is located in Lawrence County, Indiana and is in between Parks Implement Road to the north, Indiana State Road 37 to the east and is bisected by Clover Lane.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The current owner of the solar farm is Hoosier Energy Rural Electric Cooperative, Inc., an electric cooperative with ten solar installations, including Spring Mill Solar, within the States of Indiana and Illinois. Hoosier Energy REC, Inc. only serves its' members as a cooperative and is not for-profit, like a majority of major electrical utilities. The solar farm went into operation in September 2017 and is comprised of nearly 4,000 panels.

The Surrounding Area: The Spring Mill Solar installation is located in southern Lawrence County, Indiana, approximately 10 miles south of the City of Bedford, in the south-central portion of Indiana. Lawrence County benefits from close proximity to the Naval Support Activity Crane, the third largest naval base in the world located in adjacent Martin County, making defense a prospective industry for growth while the Limestone Mining Industry is the foundation of commerce in Lawrence County. The solar site is approximately 50 miles northwest of the City of Louisville, 70 miles southwest of the City of Indianapolis, and 110 miles southwest of the City of Cincinnati.

The Spring Mill Solar project is one of the 92 solar farms in Indiana and is the sole solar farm located within Lawrence County, Indiana. The Spring Mill Solar project is one of the smaller solar farms in Indiana, with the largest solar farms in the state being the 265 MW Dunn's Bridge Solar farm in Jasper County, the Riverstart Solar Park in Randolph County and the Indiana Crossroads Solar Park in White County, which both produce an output of 200 MW.

The Immediate Area: The solar farm is bisected by Clover Lane and is located along Indiana-37 to the east. The solar farm is immediately surrounded by primarily vacant agricultural land with residential homestead properties interspersed to the east and west. Approximately one and a half miles to the north lies more densely concentrated residential and commercial properties in the City of Mitchell.

Real Estate Tax Info: In Lawrence County, Indiana, real property is assessed on annual basis as of January 1 each year. The Notice of Assessment is typically sent out to property owners in April of each year and Property tax bills are then due the following May 10th and November 13th for the preceding tax year. In the State of Indiana, land utilized for solar projects have an additional increase to the assessed land value or, "Solar Base Rate", which is set by the State and ranged from $5,000 to $13,000 per acre in 2022.

Prior to the development of the solar farm, the underlying land was part of a larger parent parcel (47-14-12-800-033.000-004*) that is 55.67-acres in size and was split to create a new parcel on which the Spring Mill Solar facility was constructed (47-14-12-800-078.019-004).

In 2017, prior to the property being assessed as a solar farm, the assessed value of the land was $79,500 and ownership paid $2,251 in real estate taxes. In 2018, the assessed value increased 131.57 percent to $184,100 and the real estate tax increased to $3,459, an increase in tax revenue of 53.71 percent.

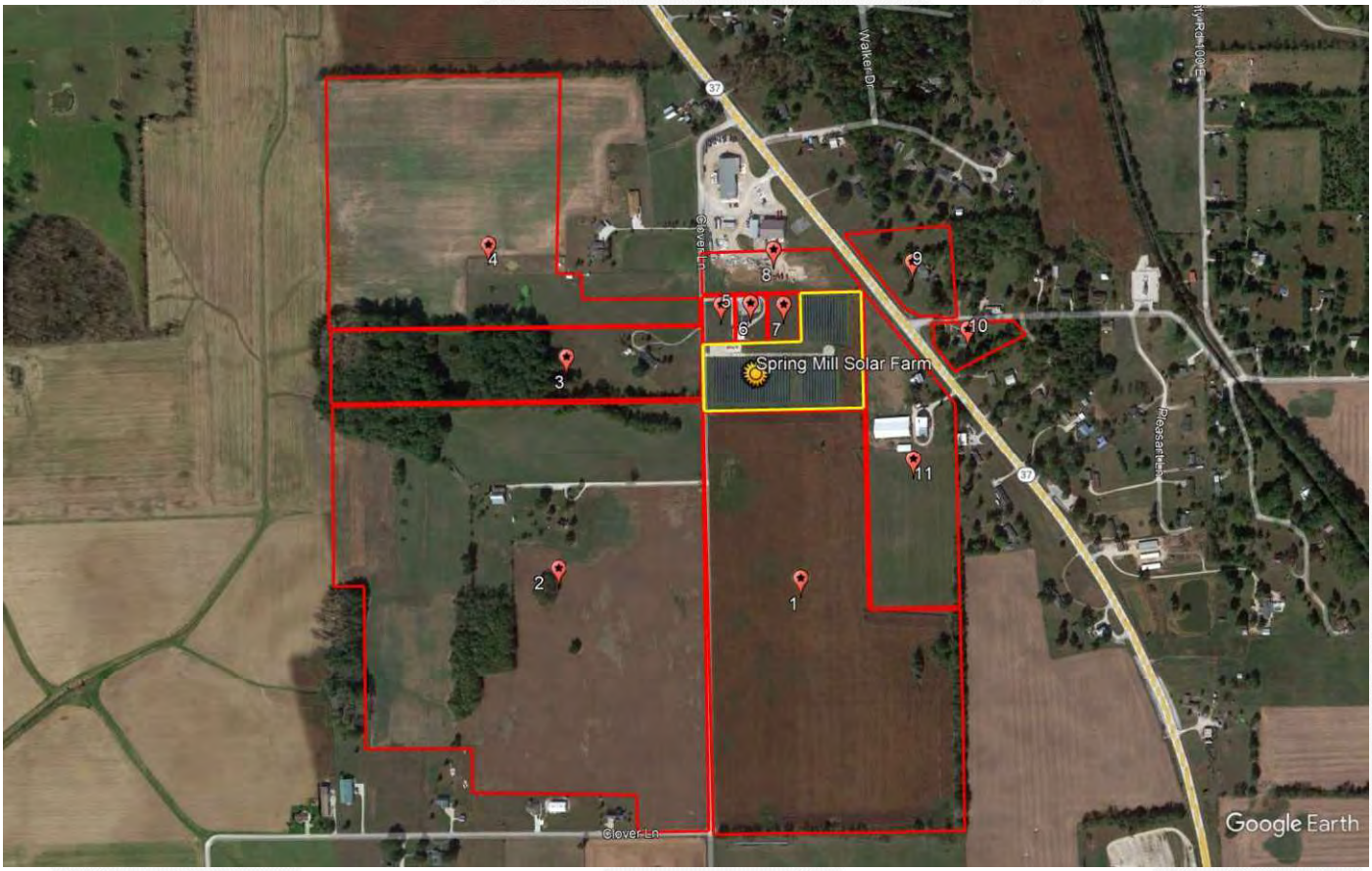
Pin	Acres
47-14-12-800-078.019-004	8.56
47-14-12-800-033.000-004*	55.67*
Total	8.56

2017 Taxes Paid	2018 Taxes Paid	Tax Increase
-	$3,459	53.71%
$2,251	-	-
$2,251	$3,459	53.71%

2017 Assessed Value	2018 Assessed Value	Value Increase
-	$184,100	131.57%
$79,500	-	-
$79,500	$184,100	131.57%

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The following maps display the parcels developed with the solar farm (outlined in yellow). Properties immediately adjoining the solar parcels (outlined in red) are numbered for subsequent analysis. It is noted that the most recent and available aerial imagery provided by Google Earth is dated October 2019.



Spring Mill Solar – Adjoining Properties

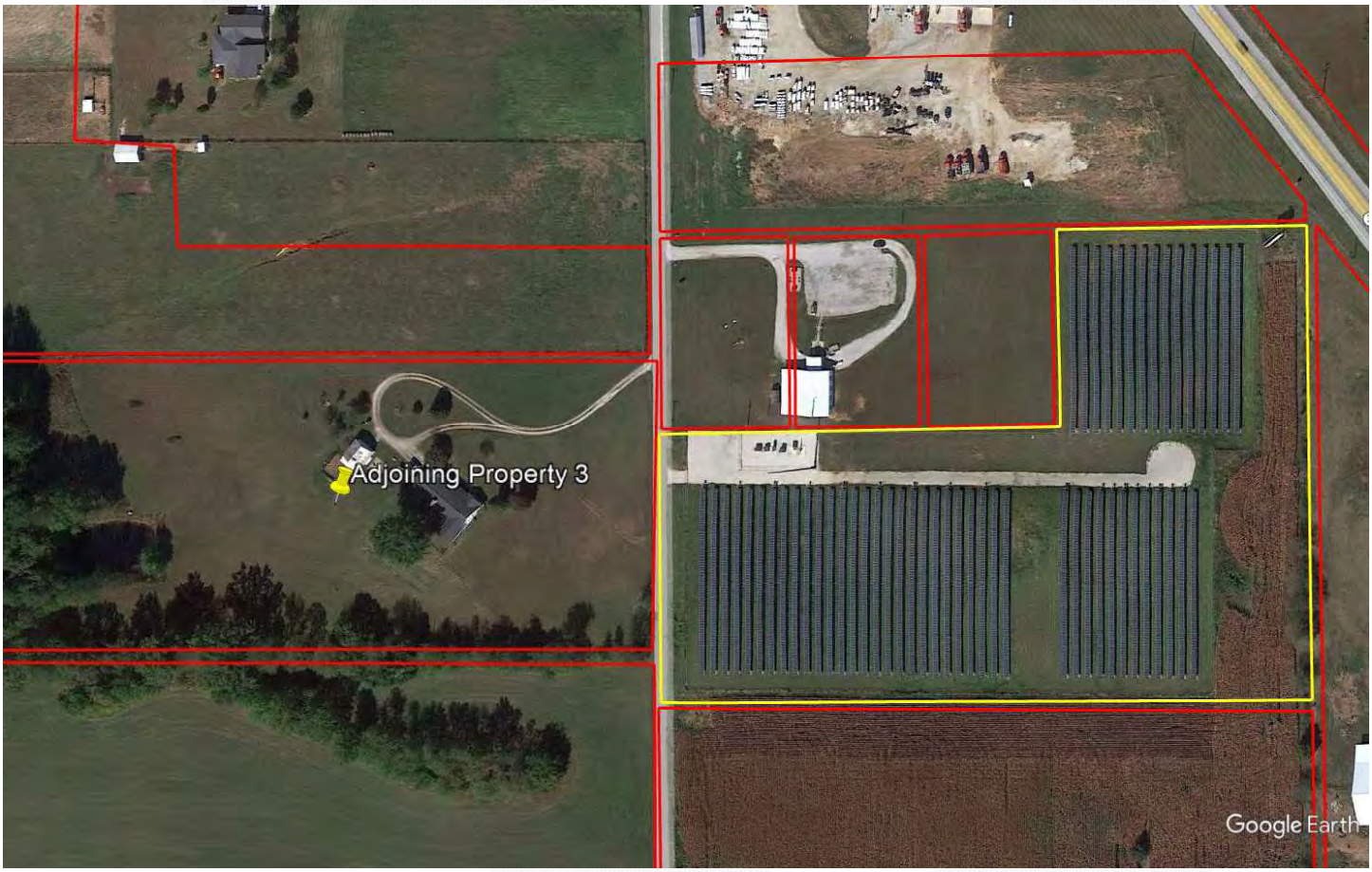
PAIRED SALES ANALYSIS

Group 1 – Improved Single-Family Residential Properties

Adjoining Property 3 to the Spring Mill Solar Project was considered for a paired sales anaylsis, and we have anaylzed this property as a single-family home use in Group 1. The property is a one-story, 2,710 sqaure foot home with an attached garage and a pole barn (in need of roof replacement at the time of sale), located on a 17.50-acre lot that sold in June 2021. This property line is approximately 55 feet from the closest solar panel, and the improvements are approximately 275 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 3.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SUMMARY OF TEST AREA SALE Group 1 - Spring Mill Solar										
Adj .Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
3	1933 Clover Lane, Mitchell	$265,000	3	2.5	1972	2,710	1-Story SFH with Attached Garage and Pole Barn (in need of roof replacement)	17.50	$97.79	Jun-21



Spring Mill Solar Farm – Test Area Sale Map, Group 1

We analyzed seven Control Area Sales of single-family homes with similar construction and use that were located within Lawrence, Orange, Washington, Martin and Jackson Counties, that were not located in close proximity to Spring Mill Solar, that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 1. The Control Area Sales for Group 1 are single-family homes located on lots between 5.5- and 17.25-acres in size with three to four bedrooms and two to three baths, consisting of between 2,305 square feet and 3,016 square feet of gross living area, and built between 1968 and 1981. The Control Area Sales also have two-car garage parking and a majority of the Control Area Sales have farm structures such as pole barns, workshops or utility sheds.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 Spring Mill Solar Farm – Group 1 is presented below.

CohnReznick Paired Sale Analysis Spring Mill Solar Group 1		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$97.79
Control Area Sales (7)	No: Not adjoining solar farm	$100.84
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**-3.03%**

We spoke with Christina Root, listing agent for 1933 Clover Lane, who stated that the buyers were very familiar with the area and *were not concerned about the adjacent* ***Spring Mill Solar Farm***. Additionally, Ms. Root indicated that the Spring Mill Solar Farm had *no impact on the final sale price* as the property sold for its' listed price after just over one month on the market.

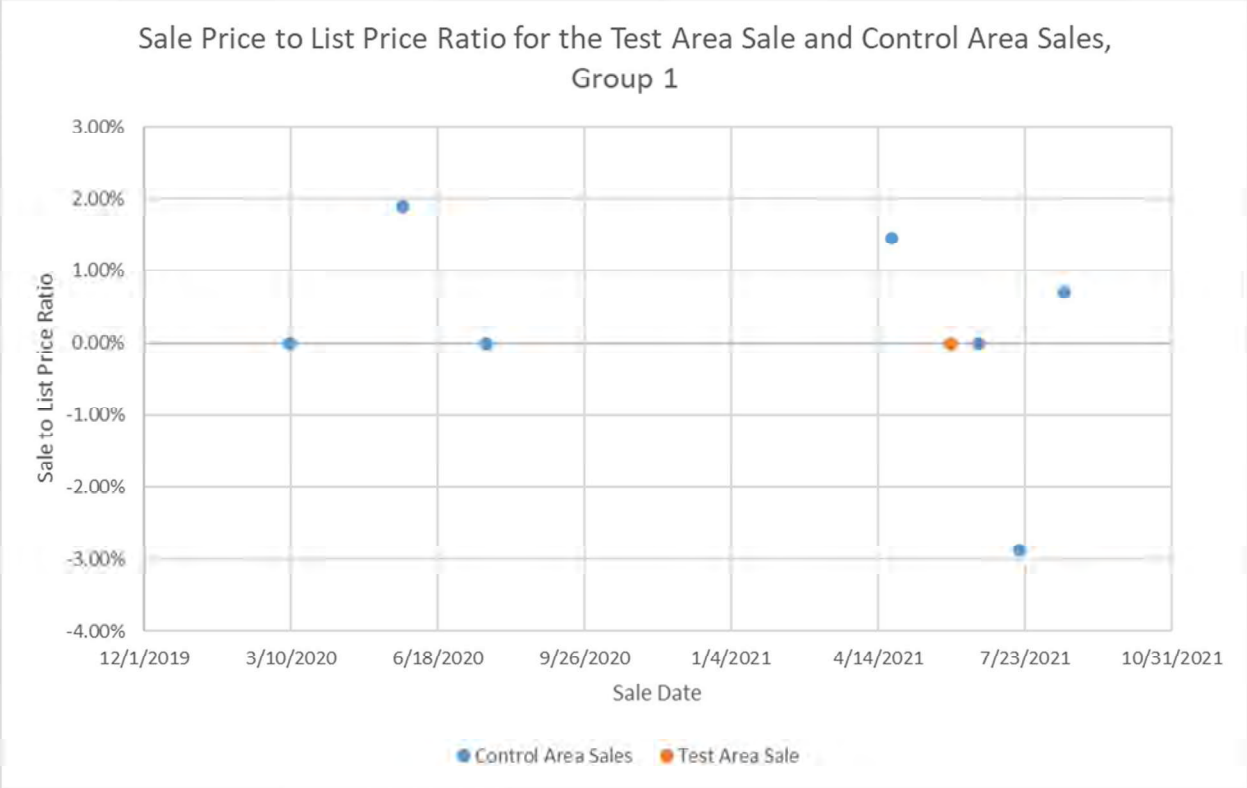
We note that the Test Area Sale in Group 1 included a pole barn with a roof needing replacement at the time of sale and none of the control sales indicated having deferred maintenance when sold.

Noting no negative marketing time differential, Test Area Sale 1 sold in 55 days, while the Control Area Sales sold between 34 and 68 days, with a median time on market of 43 days. Additionally, the Control Area Sales sold between 2.87 percent below to 1.89 percent above their listing price while Test Area Sale 1 sold at its' listing price, which is within the range of the Control Area Sales.

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 Spring Mill Solar Farm impacted the sale price of the Test Area Sale. We note that the control data had a higher median year built, representing more recently constructed residences, which likely explains the relative difference in adjusted median price per square foot.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.





Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Group 2 – Improved Single-Family Residential Properties

Adjoining Property 10 to the Spring Mill Solar project was considered for a paired sales analysis, and we have analyzed this property as single-family home use in Group 2. The property is a one-story 2,706 square foot home with an attached garage and pole barn, located on a 1.43-acre lot and sold in August 2023. The improvements on this property are located approximately 575 feet to the nearest solar panel while the property line is approximately 450 feet to the nearest solar panel. The following table outlines the other important characteristics of Adjoining Property 10.

SUMMARY OF TEST AREA SALE Group 2 - Spring Mill Solar										
Adj. Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
25	42 Gun Club Road, Mitchell	$299,000	3	2.5	1974	2,706	1-Story SFH with Attached Garage and Pole Barn	1.43	$110.50	Aug-23

We analyzed 15 Control Area Sales of single-family homes with similar construction and 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 single-family homes located on lots inbetween 0.5 and 2.72-acres in size with three to four bedrooms and two to three baths, consisting of between 2,200 square feet and 3,140 square feet of gross living area, and built between 1964 and 1983. The Control Area Sales also have two-car garage parking and a majority of the Control Area Sales have farm structures such as pole barns, workshops or utility sheds.

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 Spring Mill Solar Farm – Group 2 is presented below.

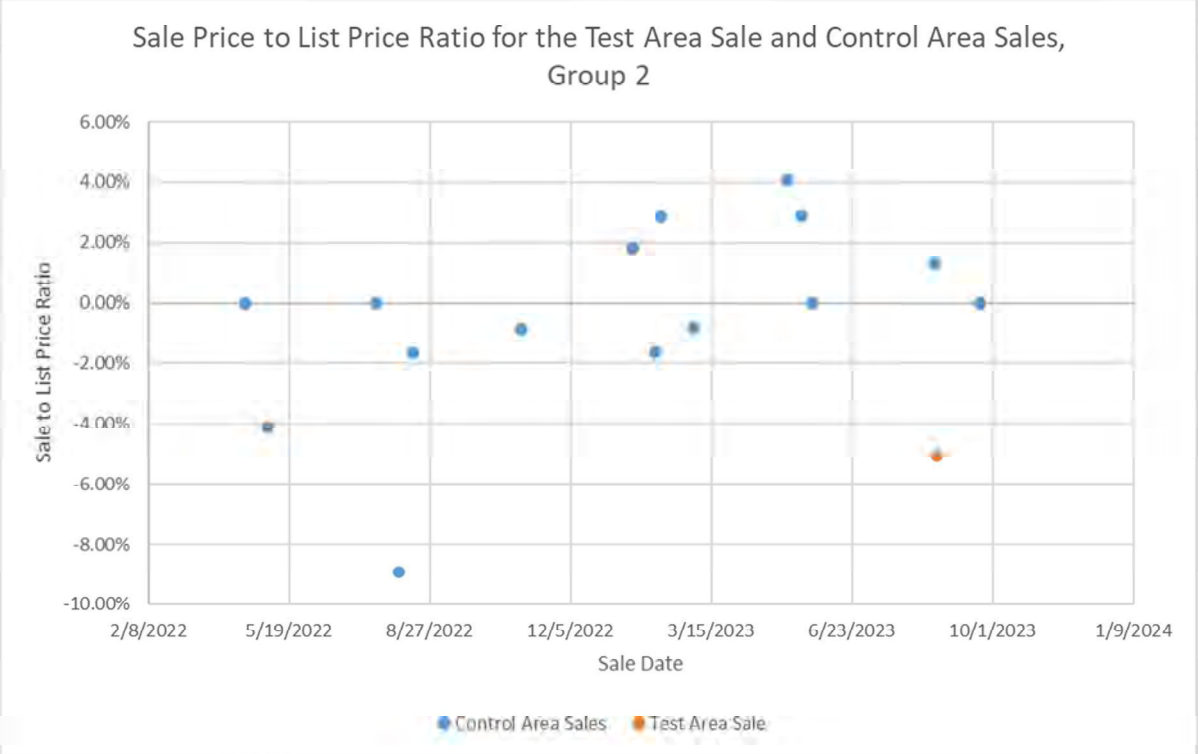
CohnReznick Paired Sale Analysis Spring Mill Solar Group 2		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$110.50
Control Area Sales (15)	No: Not adjoining solar farm	$102.03
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**8.30%**

Noting no negative price differential, it does not appear that the Spring Mill Solar Farm use impacted the sale of the Test Area Sale, Adjoining Property 10.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Noting no negative marketing time differential, Test Area Sale 2 sold in 98 days, while the Control Area Sales sold between 29 and 176 days. Additionally, the Control Area Sales sold for between 8.94 percent below to 4.05 percent above their listing price while Test Area Sale 2 sold for 5.08 percent less than its' listing price, which is within the range of the Control Area Sales.





Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Before & After Analysis – Spring Mill Solar Farm

We note the Test Area Sale in Group 2 of the Spring Mill Solar Farm Study (Adjoining Property 10) as well as seven Control Area Sales have sold at least twice over the past five years. To determine if any of the rates of appreciation for these identified home sales were affected by the proximity to the Spring Mill Solar Farm, we prepared a Repeat-Sales Analysis on the 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 Indiana's 474 Three Digit Zip Code, where Adjoining Property 10 is located, over the same period. The index for the zip code is measured on a quarterly basis and is presented below.

474 Three Digit Zip Code - Housing Pricce Index Change (Quarter over Quarter) Not Seasonally Adjusted			
Three-Digit ZIP Code	Year	Quarter	Index (NSA)
474	2017	1	187.17
474	2017	2	188.57
474	2017	3	194.19
474	2017	4	191.52
474	2018	1	198.3
474	2018	2	202.76
474	2018	3	203.27
474	2018	4	204.61
474	2019	1	207.15
474	2019	2	213.58
474	2019	3	216.22
474	2019	4	221.52
474	2020	1	223.34
474	2020	2	225.46
474	2020	3	227.72
474	2020	4	233.87
474	2021	1	239.4
474	2021	2	255.49
474	2021	3	264.07
474	2021	4	271.71
474	2022	1	281.21
474	2022	2	302.74
474	2022	3	305.83
474	2022	4	305.51
474	2023	1	299.43
474	2023	2	315.26

We have presented the full repeat sales analysis on the following page.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Repeat Sales Analysis - Test Area Sales											474 Three Digit Zip Code - FHFA Housing 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	Months Elapsed Between Sales	Monthly Appreciation Rate
10	42 Gun Club Road	1.43	2,706	8/22/2023	$299,000	10/30/2018	$190,000	57.37%	58	0.79%	58	0.75%

Repeat Sales Analysis - Control Area Sales											474 Three Digit Zip Code - FHFA Housing 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	Months Elapsed Between Sales	Monthly Appreciation Rate
1-5	2458 Rabbitsville Road	14.96	2,526	5/25/2020	$275,000	6/6/2018	$185,000	48.65%	24	1.69%	24	0.45%
1-7	4338 Williams Road	7.72	2,914	8/19/2021	$302,000	8/9/2018	$229,900	31.36%	36	0.75%	36	0.72%
2-2	361 Johnson Lane	1.00	2,666	5/18/2023	$217,500	6/10/2022	$209,900	3.62%	11	0.32%	11	0.36%
2-5	309 3rd Street	1.21	2,664	3/2/2023	$252,000	1/28/2019	$177,900	41.65%	49	0.71%	49	0.75%
2-10	1803 Linwood Drive	0.59	2,200	8/15/2022	$304,900	7/11/2019	$180,000	69.39%	37	1.43%	37	0.94%
2-11	6877 State Road 54W	1.62	2,600	10/31/2022	$332,500	6/22/2020	$172,000	93.31%	28	2.36%	28	1.08%
2-13	508 Knoll Drive	1.01	2,778	5/8/2023	$450,000	10/29/2020	$350,000	28.57%	30	0.83%	30	0.99%
	Median - Control Area Sales	*1.21*	*2,664*							*0.83%*		*0.75%*

Conclusion

When compared to the FHFA home price index for the 474-zip code, the median extraction rate for the resale of Adjoining Property 10, that sold twice in the previous five years, exhibited a higher rate of appreciation than the Home Price Index for the 474-zip code. Additionally, the monthly appreciation rate of the Adjoining Property 10 was in line with the median monthly appreciation rate of the Control Area Sales, as depicted by the far-right column in the tables above. As such, we have concluded that there does not appear to be a consistent detrimental impact on properties adjacent to the Spring Mill Solar Farm.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SOLAR FARM 10: JEFFERSON COUNTY COMMUNITY SOLAR GARDEN, JEFFERSON COUNTY, CO

Coordinates: Latitude 39.859564, Longitude -105.1497

PIN: 29-194-01-037

Total Land Size: 13.63 acres

Population Density (2022): 744 people per square mile (Jefferson County)

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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

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
Aerial Imagery provided by Google Earth, dated May 2023
(Green Arrow – Direction of Photos on Following Page)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

PAIRED SALES ANALYSIS

In reviewing Adjoining Properties to study in a Paired Sales Analysis, one property and sale was considered but eliminated from further consideration as discussed below.

One adjoining residential property, Adjoining Property 11, was sold on June 7, 2022 for $900,000 or $446.21 per square foot of living area. Adjoining Property 11 is comprised of a single-story single family home with an unfinished basement and three-car attached garage, built in 2015 on a 0.21-acre lot. We have not included the sale of Adjoining Property 11 after speaking with the selling broker, Thomas Barron of A+ Realty Group, ***who noted this was a non-arm's length transaction and the buyer and seller involved had traded properties to avoid the hard costs involved financing the purchase of either property. Mr. Barron also stated that the property was initially openly marketed and potential buyers were not concerned about the adjacent solar farm.***

We identified six Adjoining Properties that qualified for a paired sales analysis, Adjoining Properties 1, 5, 9 (sold twice), 10, 13 and 17.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



View from 89th Loop towards Solar Farm at rear of home



View from the rear of a Test Area Sale, towards Solar Farm

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Group 1 – Improved Single-Family Residential Properties

Adjoining Properties 1, 5 and 9 to the Jefferson County Community Solar project were considered for a paired sales analysis, and we have analyzed these properties as a single-family home use in Group 1. The properties are two-story single-family homes with two- and three-car attached garages and basement areas, ranging from 3,201 square feet to 3,461 square feet of living area and are located on lots under one-acre in size within the Whisper Creek subdivision. The improvements on these properties are located between approximately 725 feet and 950 feet to the nearest solar panel while the property lines are between approximately between 685 feet and 860 feet to the nearest solar panel. The following table outlines the other important characteristics of Adjoining Properties 1, 5 and 9.

SUMMARY OF TEST AREA SALES Group 1 - Jefferson County Community Solar Garden										
Adj. Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
1	8958 Devinney Ct	$980,000	5	4.5	2011	3,201	2-Story SFH with Finished Basement and 3-Car Attached Garage	0.53	$306.15	Aug-20
5	8918 Devinney Court	$895,000	4	3.5	2014	3,202	2-Story SFH with Unfinished Basement and 3-Car Attached Garage	0.39	$279.51	Nov-20
9	13929 W. 89th Loop	$1,100,000	4	3.5	2016	3,461	2-Story SFH with Unfinished Basement and 2-Car Attached Garage	0.24	$317.83	Aug-21



Jefferson County Community Solar Farm – Test Area Sale Map, Group 1

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

We analyzed twelve Control Area Sales of single-family homes with similar construction and use that were located within the Whisper Creek Subdivision and not adjacent to the solar farm, that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 1. The Control Area Sales for Group 1 are two-story single-family homes located on lots less than 1.0-acre in size with four to five bedrooms and three and a half to four and a half baths, consisting of between 2,700 square feet and 3,900 square feet of gross living area, and built between 2009 and 2016. The Control Area Sales also have additional improvements such as attached garage parking and basement areas. It is noted that while we searched for all home sales within these parameters, of the twelve Control Area Sales included in Group 1 only three have lot size above 0.30-acres whereas, the three Test Area Sales had lots sizes of 0.53-acres, 0.39-acres and 0.24-acres. Additionally, other potential Control Area Sales within the Whisper Creek subdivision with more comparable lot sizes to the Test Area Sales consisted of significant differences in bed and bath count or square feet of gross living area and have not been included in Group 1.

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 Jefferson County Community Solar Project – Group 1 is presented below.

CohnReznick Paired Sale Analysis Group 1 - 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	$306.15
Control Area Sales (12)	No: Not adjoining solar farm	$270.00
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**13.39%**

Noting no negative marketing time differential, Adjoining Properties 1, 5 and 9 sold after between 33 days and 106 days on the market, with a median time on market of 62 days, while the Control Area Sales sold between 12 and 271 days, with a median time on market of 58 days.

Noting no negative price differential, with Adjoining Properties 1, 5 and 9 having a higher unit sale price than the Control Area Sales, it does not appear that the Jefferson County Community Solar Farm had any negative impact on the sale of the Test Area Sale.

We note that the Control Area Sales consisted of slightly smaller lot sizes, with a median lot size of 0.25-acres compared to a median lot size of 0.39-acres for the Test Area Sales, which likely explains the relative difference in adjusted median price per square foot.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Group 2 – Improved Single-Family Residential Properties

Adjoining Property 17 to the Jefferson County Community Solar project was considered for a paired sales analysis, and we have analyzed this property as a single-family home use on agricultural zoned land in Group 2. The property consists of two single-story dwellings totaling 4,675 square feet with attached garage parking and various outbuildings utilized for horse ranching, located on a 9.79-acre lot and sold in August 2023. The improvements on this property are located approximately 80 feet to the nearest solar panel while the property line is approximately 30 feet to the nearest solar panel. The following table outlines the other important characteristics of Adjoining Property 17.

SUMMARY OF TEST AREA SALE Group 2 - Jefferson County Community Solar Garden										
Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
17	8895 Alkire Street	$1,650,000	4	2.5	1978 & 1987	4,675	Two Single-Story SFH's with Attached Garages and No Basements; Horse Arena, Loafing Shed, Paddocks and Tack Room	9.79	$352.94	Aug-23



Jefferson County Community Solar Farm – Test Area Sale Map, Group 2

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

We analyzed four Control Area Sales of single-family homes with similar construction and use that were located within Jefferson County or 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 single-family homes located on agricultural zoned land, located on lots in between 5.00 and 11.00-acres in size, with three to four bedrooms and two to four baths, consisting of between 4,000 square feet and 4,700 square feet of gross living area, and built between 1972 and 1987. The Control Area Sales also have additional improvements such as garage parking, pole barns, workshops or outbuildings utilized for horse ranching .

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 Jefferson County Community Solar Project – Group 2 is presented below.

CohnReznick Paired Sale Analysis Group 2 - Jefferson County Community Solar Garden		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$352.94
Control Area Sales (4)	No: Not adjoining solar farm	$356.89
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**-1.11%**

The marketing time (from list date to closing date) for Control Area Sales ranged from 75 to 736 days on market with a median of 90 days on market, and the marketing time for Adjoining Property 17 was 307 days, which is within the range of the Control Area Sales, ***and we note no significant marketing time differential.***

Noting minimal negative price differential, it does not appear that the Jefferson County Community Solar Farm use impacted the sale of the Test Area Sale, Adjoining Property 17.

This was confirmed by the buying agent, Eugene Mitchell of Signature Real Estate Corp., who stated, ***"My client was not deterred from buying the property due to the adjacent solar farm. I have not seen an indication that the solar farm has any negative impact nor have I heard from other local brokers that it is a concern among potential buyers."*** Additionally, we discussed the marketing of Adjoining Property 17 with the listing agent, Asa Kortman of Keller Williams Realty, who stated, "The original list price of $2,300,000 was too aggressive but insisted upon by my client. After six months we decreased the list price to $1,600,000 in April of 2023 and the property attracted four competing offers, ultimately selling after 121 days and above the new listing price." The Test Area Sale is located on agricultural zoned land which restricts the potential uses on the land and limits higher density commercial or residential development. The selling party of the Test Area Sale set the original list price based on similarly sized properties with non-agricultural zoned land ultimately leading to a large decrease in list price after not attracting offers at $2,300,000.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Group 3 – Improved Single-Family Residential Properties

Adjoining properties 9, 10 & 13 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.

Group 3 - 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 and not adjoining, in other areas of the Whisper Creek subdivision.



Jefferson County Community Solar Farm – Test Area Sale Map, Group 3

All Control Area Sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

The results of our analyses for the Jefferson County Community Solar Garden are presented below.

CohnReznick Paired Sale Analysis Group 3 - 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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Before & After Analysis – Jefferson County Community Solar Farm

We note a Test Area Sale in Groups 1 and 3 of the Jefferson County Community Solar Farm (Adjoining Property 9) has sold at least twice over approximately the past five years. To determine if any of the rates of appreciation for these identified home sales were affected by the proximity to the Jefferson County Community Solar Farm, we prepared a Repeat-Sales Analysis on the 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 Colorado's 800 Three Digit Zip Code, where Adjoining Property 9 is located, over the same period. The index for the zip code is measured on a quarterly basis and is presented below.

800 Three Digit Zip Code - Housing Pricce Index Change (Quarter over Quarter) Not Seasonally Adjusted			
Three-Digit ZIP Code	Year	Quarter	Index (NSA)
800	2016	1	246.20
800	2016	2	257.04
800	2016	3	264.47
800	2016	4	269.06
800	2017	1	274.73
800	2017	2	285.57
800	2017	3	290.87
800	2017	4	294.57
800	2018	1	302.96
800	2018	2	311.49
800	2018	3	314.90
800	2018	4	315.14
800	2019	1	319.79
800	2019	2	324.21
800	2019	3	326.15
800	2019	4	328.49
800	2020	1	330.57
800	2020	2	335.39
800	2020	3	342.51
800	2020	4	348.90
800	2021	1	359.07
800	2021	2	384.17
800	2021	3	409.73
800	2021	4	420.22
800	2022	1	438.10
800	2022	2	474.74
800	2022	3	466.26
800	2022	4	449.45
800	2023	1	457.65
800	2023	2	466.78
800	2023	3	469.38

We have presented the full repeat sales analysis on the following page.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Repeat Sales Analysis											800 Three Digit Zip Code - FHFA Housing Price Index			
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 Quarter of Most Recent Sale	Prior Sale Quarter Index Level	Total Appreciation	Monthly Appreciation Rate
9	13929 W. 89th Loop	0.53	3,461	8/10/2021	$1,100,000	6/17/2016	$636,332	72.87%	62	0.89%	409.73	257.04	59.40%	0.76%

Conclusion

When compared to the FHFA home price index for the 800-zip code, the extraction rate for the resale of Adjoining Property 9, that sold twice times in the previous five years, exhibited a higher rate of appreciation than the Home Price Index for the 800-zip code. As such, we have concluded that there does not appear to be a consistent detrimental impact on properties adjacent to the Jefferson County Community Solar Farm.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

TECHNIQUE 3: MARKET COMMENTARY

Additionally, we have contacted market participants such as appraisers, brokers, and developers familiar with property values around solar farms. Between 2017 and 2024, we have contacted over 75 assessors and other market participants. These market participants have reported no evidence of reduced property values due to vicinity to solar parks. Commentary from our conversations with these market participants is recorded below.

Ted Droeste, assessor of Delta Township has the Delta Solar Power facility in his district that was completed in 2018. *He indicated that he has been actively tracking sales of properties surrounding the solar facility and stated that properties have sold fast, at market or above market and he had no evidence of declining value.* Mr. Droeste stated that they have not adjusted assessed values for properties surrounding the solar panels.

A Clark County, Kentucky Property Valuation Administrator, Jason Neely, noted there have been no complaints regarding East Kentucky Power Cooperative, Inc.'s Cooperative Solar One project installed in November 2017 located in the county, which has a capacity to generate 8.5 MW of electricity. Additionally, Neely stated he has not seen any evidence of lowered property values in the area and *no reduction in assessed property values has been made due to proximity to the solar farm.*

A Grant County, Kentucky Assessor stated that *they have not seen a reduction in assessed property values or market values for adjacency to solar farms.*

A McNairy County, Tennessee Assessor stated that they *have not applied reductions to assessed value for adjacency to solar farms.*

Christy Wingate, a real estate broker with Parker Real Estate Group, noted in her experience, *the presence of a solar farm is neither an attraction nor a deterrant for nearby home buyers.*

A Miami Dade County, Florida Assessor stated that they *do not reduce assessed property values for adjacency to Solar Farms*.

A Putnam County, Florida Assessor stated that they *have not seen a reduction in assessed value for adjacency to Solar Farms.*

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.*

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.*

Mason Hass, the Riverhead Assessor in Suffolk County, on Long Island, New York stated that the solar farms in his town are in industrial zoned areas, and he *has not seen any impact on adjacent properties.*

The Assessor for the town of Smithtown in Suffolk County, New York, Irene Rice, *has not seen any impact on property values as a result of their location near the newly built solar farms in her town.*

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.*

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.*

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, 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 2016 to October 2017. From the study, the assessor determined the residential homes adjacent to the North Star Solar Farm *were in-line with the market and were appreciating at the same rate as the market.*[19]

[19] Chisago County Press: County Board Real Estate Update Shows No "Solar Effects" (11/03/2017)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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., substation). 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.[20] 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.

Agrivoltaics: The land underlying solar farms can serve multiple uses, increasing land-use efficiency, such as growing native plants beneath solar panels or grazing sheep amongst rows of solar panels. Agrivoltaics can further be defined as a farming method that aims to maximize land use by pairing solar panels with cropland,

[20] Virginia Solar Initiative - Weldon Cooper Center for Public Service – University of Virginia (https://solar.coopercenter.org/taxonomy/term/5311)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

thus minimizing competition between energy production and food.[21] Scientists from the Department of Energy's Agronne National Laboratory in Illinois and the National Renewable Energy Laboratory in Colorado conducted tests on two different solar installations in Minnesota that were built on 76 acres of farmland. The land beneath the solar panels was seeded with numerous species of native grasses and flowers, then allowed to grow for one year. The following years, the two sites were visited four times each summer during peak flower season to track the number and type of insects attracted to the newly planted vegetation. After five years of tracking, the population of native bees increased more than 20 times and adjacent soybean farms experienced an increase in bees and other pollinators. Testing shows that if sited properly, habitat-friendly solar energy can be a feasible way to safeguard insect populations and can improve the pollination services in adjacent agricultural fields.[22]

Examples of homes built adjoining to solar farms are presented on the following pages.

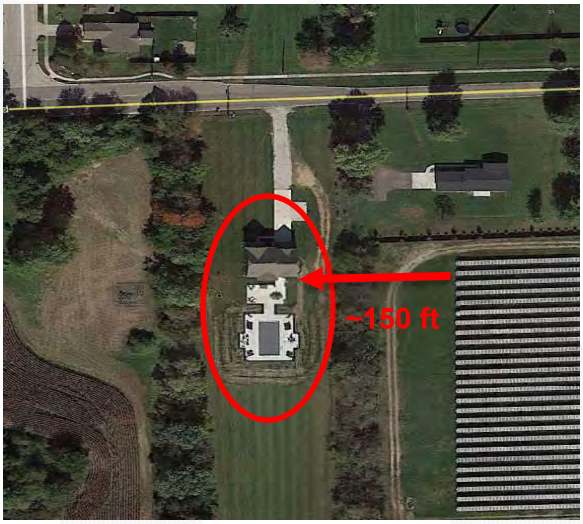
[21] (Bryce, Anthropocene Magazine, 2023) (Solar panels handle heat better when combined with crops (anthropocenemagazine.org))
[22] (Cornwall, Solar Farms Could Come with a Pollinator Bonus, 2024) (Solar farms could come with a pollinator bonus (anthropocenemagazine.org))

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Innovative Solar 42 (2017)
Cumberland County, NC

Single Family Home Development (1)
- End-user built
- 2,933 SF
- Completed on 3/1/2019
- Cost estimate: $170,300

Single Family Home Development (2)
- Developer built
- 4 Bedroom
- 3 Bathroom
- 2,401 SF
- Sold 6/18/19 for $265,900 ($110.75/sf)



Innovative Solar 42 (2019)
Cumberland County, NC

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Developer Built Home

Sold 6/18/19 for $265,900 ($110.75/sf)

Cumberland County, NC (adjacent to Innovative 42 solar farm)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Portage Solar Farm located in Indiana

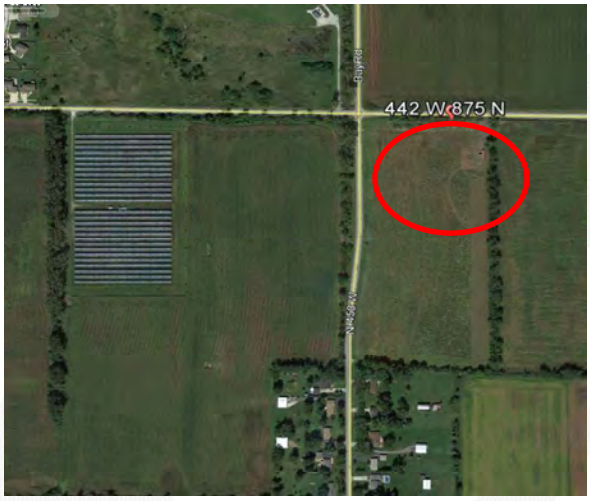


A new 175-home subdivision is currently under construction adjacent the 1.5 MW Portage Solar Farm in Porter County, Indiana. The solar facility was completed in November 2011, and Lennar began construction on the Brookside Subdivision in 2022, with the first homes selling in March 2023. The subdivision is 100 feet from the panels. As of June 2024, there have been 90 closed sales, ranging from $274,990 to $454,675, or $105.00 to $220.54 PSF, with an average of $364,990 or $161.00 PSF. Every house along the boundary with the solar farm sold, with an average price of $387,664 or $167.00 PSF, or 3.75% higher. There are 14 active listings, ranging from $374,990 to $433,990.

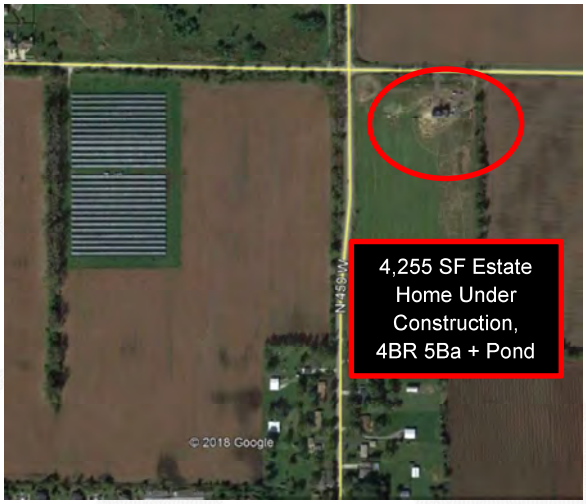
On the next page, we show the same Portage Solar Farm and a newly constructed home to the east of the solar facility, completed in 2016.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

CohnReznick



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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



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 encircled 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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

SUMMARY OF ADJOINING USES

The table below summarizes each Existing Solar Farm's adjoining uses.

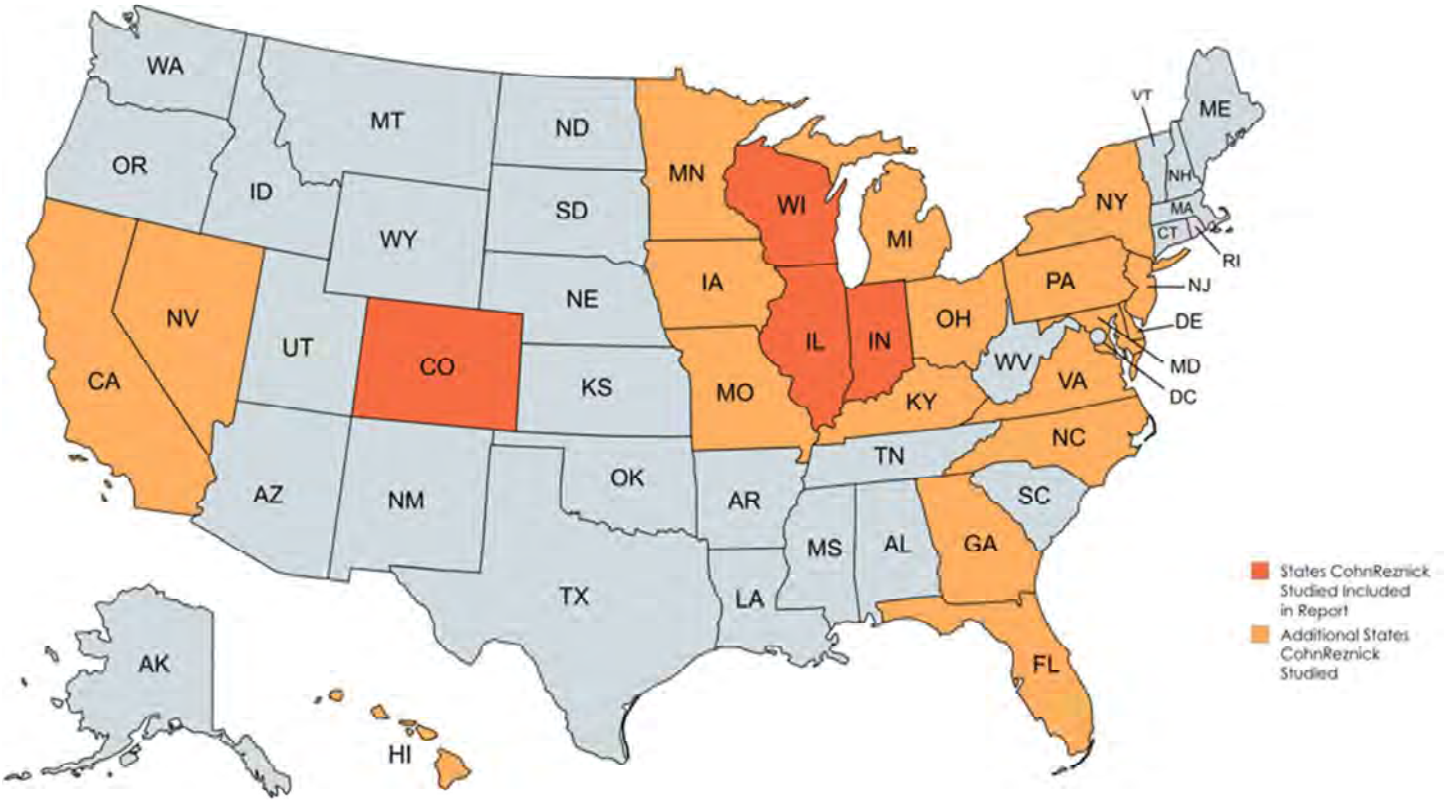
Composition of Surrounding Uses (% of Surrounding Acreage)							
Solar Farm #	Solar Farm	Acreage % of Surrounding Agricultural Uses	Acreage % of Surrounding Residential Uses	Acreage % of Surrounding Industrial Uses	Acreage % of Surrounding Office Uses	Acreage % of Surrounding Other Uses	Avg. Distance from Panels to Improvements (Feet)
1	Grand Ridge Solar	97.60%	1.40%	0.00%	0.00%	1.00%	553
2	2662 Freeport	96.30%	3.50%	0.00%	0.00%	0.20%	243
3	Pretzel CSG	73.30%	3.40%	0.00%	0.00%	23.30%	1590
4	IGS Stockton DG CSG	95.40%	2.50%	0.50%	0.00%	1.60%	300
5	Exelon Solar Chicago	99.00%	0.60%	0.20%	0.20%	0.00%	173
6	O'Brien Solar Fields	94.80%	2.00%	0.00%	0.00%	3.10%	613
7	Dominion Indy Solar III	97.70%	2.30%	0.00%	0.00%	0.00%	474
8	Portage Solar	65.50%	34.50%	0.00%	0.00%	0.00%	991
9	Spring Mill Solar	17.80%	54.30%	0.00%	0.00%	27.90%	481
10	Jefferson Community	73.33%	10.00%	0.00%	0.00%	16.67%	730

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 Cultivate Power's proposed solar project in terms of adjoining uses, location, and size.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 map of all states that CohnReznick has conducted a solar farm impact study and included in this report is presented below.



A summary of the chosen CohnReznick impact studies prepared is presented on the following page.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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
Single-Family Residential								
1	Grand Ridge Solar	1	5	$79.90	$74.35	+7.46%	366	479
2	2662 Freeport Solar CSG	2	14	$77.33	$76.08	+1.65%	100	230
3	Pretzel CSG	1	5	$97.37	$90.96	+7.04%	475	490
4	IGS Stockton DG CSG	1	10	$50.52	$52.20	-3.33%	200	250
5	Exelon Solar Chicago	1	17	$170.00	$169.30	+0.41%	95	120
6	O'Brien Solar Fields Group 1	1	45	$261.62	$268.41	-2.53%	495	530
	O'Brien Solar Fields Group 2	1	22	$250.24	$247.38	+1.16%	465	515
	O'Brien Solar Fields Group 3	1	4	$207.08	$206.42	+0.32%	420	515
7	Dominion Indy Solar III Group 2	4	8	$60.61	$57.84	+4.78%	240	350
	Dominion Indy Solar III Group 3	7	11	$72.15	$71.69	+0.65%	215	405
8	Portage Solar Group 1	1	9	$8,000	$7,674	+4.25%	836	1228
	Portage Solar Group 2	1	7	$84.35	$84.27	+0.10%	1196	1227
9	Spring Mill Solar Group 1	1	7	$97.79	$100.84	-3.03%	55	275
	Spring Mill Solar Group 2	1	15	$110.50	$102.03	+8.30%	450	575
10	Jefferson County CSG Group 1	3	12	$306.15	$270.00	+13.39%	685	725
	Jefferson County CSG Group 2	1	4	$352.94	$356.89	-1.11%	30	80
	Jefferson County CSG Group 3	3	6	$165.15	$164.36	+0.48%	619	652
Median Variance in Sale Prices for Test Area Sales to Control Area Sales						**+0.65%**		
31 Adjoining Test Area Sales studied and compared to 201 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)								
7	Dominion Indy Solar III Group 1	1	4	$8,210	$8,091	+1.47%	280	-
Median Variance in Sale Prices for Test to Control Areas						**+1.47%**		
1 Adjoining Test Area Sale studied and compared to 4 Control Area Sales								

As summarized above, we evaluated 32 property sales adjoining existing solar facilities (Test Area Sales) and 205 Control Area Sales. In addition, we studied a total of 26 Test Area Sales and 53 Control Area Sales in two Before and After analyses. In total, we have studied over 300 sale transactions.

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.

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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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, CRE
Principal - Valuation Advisory Services
Certified General Real Estate Appraiser

Illinois License No. 553.001841
Expires 9/30/2025
Indiana License No. CG41500037
Expires 6/30/2026

Erin C. Bowen, MAI
Director
Certified General Real Estate Appraiser

Iowa License No. CG04209
Expires 6/30/2026
Oregon License No. C001551
Expires 6/30/2026

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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. Andrew R. Lines, MAI, CRE, 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 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, Andrew R. Lines, MAI, CRE, and Erin C. Bowen, MAI have completed the continuing education program for Designated Members of the Appraisal Institute.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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, CRE
Principal - Valuation Advisory Services
Certified General Real Estate Appraiser

Illinois License No. 553.001841
Expires 9/30/2025
Indiana License No. CG41500037
Expires 6/30/2026

Erin C. Bowen, MAI
Director
Certified General Real Estate Appraiser

Iowa License No. CG04209
Expires 6/30/2026
Oregon License No. C001551
Expires 6/30/2026

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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 predicted 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.

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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.**
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

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

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.

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

ADDENDUM A:
APPRAISER QUALIFICATIONS

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Andrew R. Lines, MAI, CRE

Principal – Real Estate Valuation
Valuation Advisory Services

1 S. Wacker Drive, Suite 3550
Chicago, IL 60606
312-508-5892 (w)
917-696-9636 (m)
andrew.lines@cohnreznick.com
www.cohnreznick.com

Andrew R. Lines, MAI, CRE is a Principal for CohnReznick Advisory's Valuation Advisory Services practice who has been a CohnReznick employee for over twelve years. Andrew has been involved in the real estate business for more than 20 years and has performed valuations on all real estate classes (industrial, commercial, residential, development land). Special-use valuations include affordable housing (as well as market studies), student housing, senior housing, cannabis facilities (indoor/outdoor, processing and dispensaries), landfills, waste transfer stations, golf courses, marinas, hospitals, universities, telecommunications facilities, data centers, self- storage facilities, racetracks, and corridors. Impact Study Reports have also been generated for zoning hearings related to the development of solar facilities, wind powered facilities, landfills, big box retail, waste transfer stations, private mental health clinics, cannabis dispensaries, concert/stadium venues and day care centers. He is also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, IFRS and IRC 1060) for financial reporting.

Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. Andrew has qualified as an expert witness, providing testimony for cases in the states of IL, DC, VA, NY and MD, and for zoning hearings in IL, IN, MI, NY, HI, OH, KY, CO, PA, WI and MO. Andrew has also performed appraisal review assignments for accounting purposes (audit support), asset management, litigation and as an evaluator for a large Midwest regional bank.

Andrew has earned the professional designation of Member of the Appraisal Institute (MAI). He has also qualified for certified general commercial real estate appraiser licenses in AZ, CA, IL, IN, WI, MD, OH, NY, NJ, FL, GA, KY and DC. Temporary licenses have been granted in CT, CO, PA, ID, MS, KS, MT and SC.

Education

- Syracuse University: Bachelor of Fine Arts
- MAI Designation (Member of the Appraisal Institute)

Professional Affiliations

- Counselors of Real Estate (CRE)
- Chicago Chapter of the Appraisal Institute
- International Real Estate Management (IREM)
- National Council of Housing and Market Analysts (NCHMA)

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Community Involvement

- Syracuse University Regional Council
- Chicago Friends School

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Erin C. Bowen, MAI

Director, Valuation Advisory Services

404-847-7740
erin.bowen@cohnreznick.com
www.cohnreznick.com

Erin Bowen, MAI is a Director 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 Iowa, New Mexico, Oregon, Arizona, California, and Nevada

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Joe Ficenec

Consultant, Valuation Advisory Services

621 Capital Mall
Sacramento, CA 95814
916-930-5237
joe.ficenec@cohnreznick.com
www.cohnreznick.com

Joe Ficenec is a consultant in CohnReznick's Valuation Advisory Services practice and is based in the Sacramento office. Joe specializes in Impact Study Reports, which have been conducted for zoning hearings related to the development of solar facilities and wind powered facilities. He also has experience in assisting with the appraisal multifamily, office, industrial, retail, lodging and mixed-use properties for financing and purchase price allocation purposes.

Joe graduated with honors from the University of California, Davis in May 2017 with a major in managerial economics. Prior to joining CohnReznick, Joe worked as a Real Estate Assessor for a county government and as a consultant for a nationwide real estate firm in San Francisco.

Education

- University of California, Davis – B.S. Managerial Economics

Disclaimer: This report is limited to the intended use, intended users (Cultivate Power, LLC), and the client's legal and site development professionals and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between

Skystone Solar, LLC

and the

ILLINOIS DEPARTMENT OF AGRICULTURE

Pertaining to the Construction of a Commercial Solar Energy Facility

in

McHenry **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).

Skystone Solar, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 3.5MWac Commercial Solar Energy Facility in McHenry County [GPS Coordinates: 42.23690, -88.41460], which will consist of up to 26 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.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

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.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

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.

Docusign Envelope ID: 9F9B4B6C-F215-448A-9F48-00F7B017A8AA

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 Skystone Solar, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in McHenry County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE

Jerry Costello II

By: Jerry Costello II, Director

Clay Nordsiek

By Clay Nordsiek, Deputy General Counsel

801 E. Sangamon Avenue,
State Fairgrounds, POB 19281
Springfield, IL 62794-9281

4/22, 2025

Skystone Solar, LLC

Signed by:
Paul Bottum
D63D1D8F79704DD...

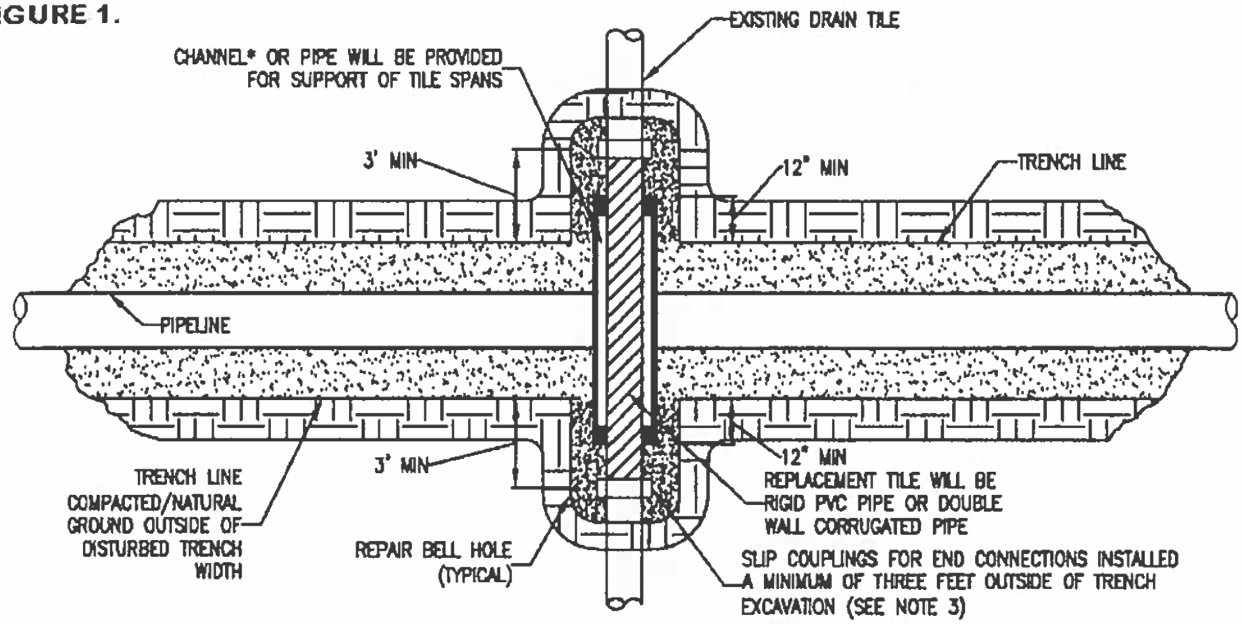
By Paul Bottum, Authorized Person

Address

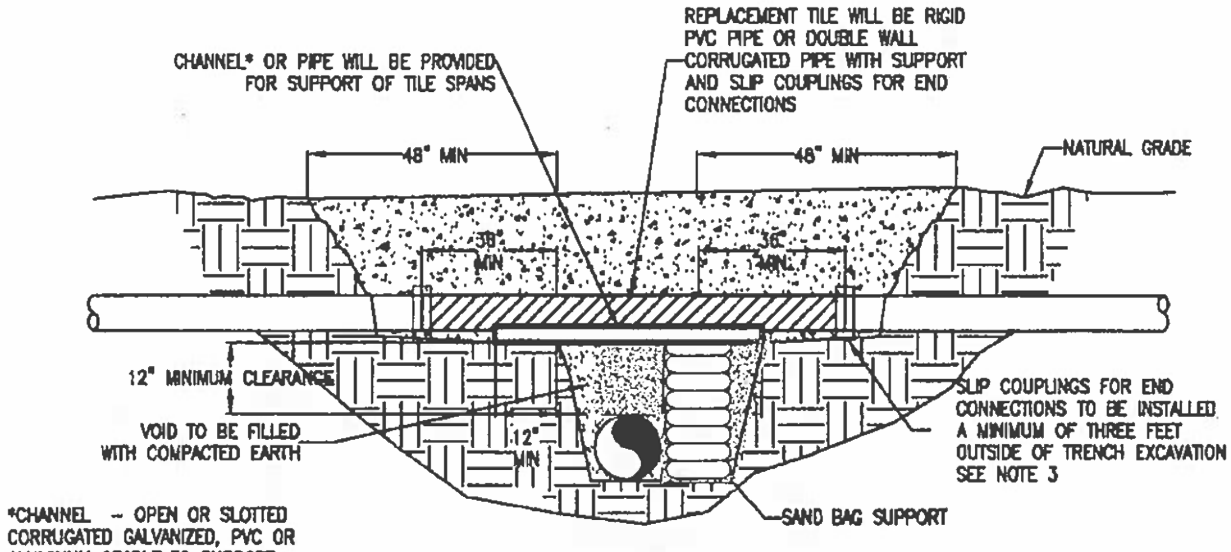
30 W Hubbard St., Ste 400
Chicago, IL 60654

April 14, 2025

FIGURE 1.



PLAN
N.T.S.



*CHANNEL – OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

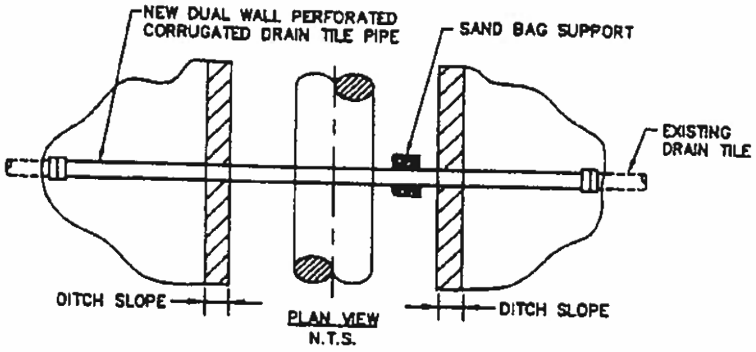
CROSS SECTION
N.T.S.

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.

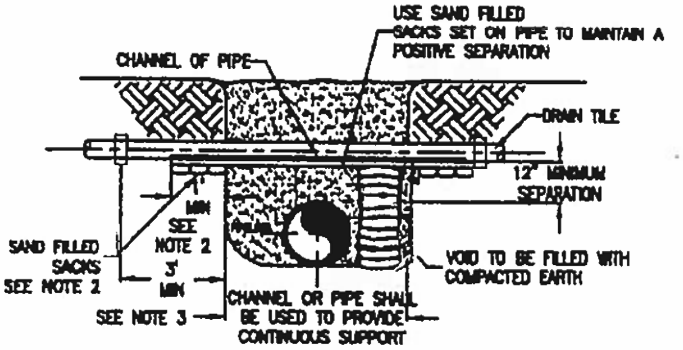
TEMPORARY DRAIN TILE REPAIR

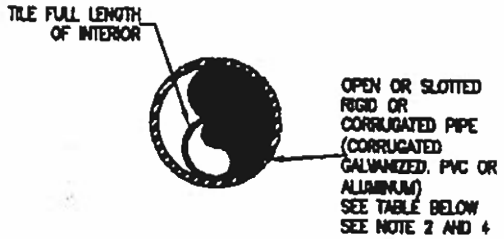
FIGURE 2.



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 SUP 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

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor

Natalie Phelps Finnie, Director

April 24, 2025

Paul Bottum
Skystone Solar, LLC
30 W Hubbard St
Ste 400
Chicago, IL 60654

RE: Skystone Solar, LLC
Project Number(s): 2512270
County: McHenry

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

However, the Department recommends:

Establishing pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:
https://dnr.illinois.gov/conservation/pollinatorscorecard.html

The site should be de-compacted before planting.

Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.

Required fencing, excluding areas near or adjacent to public access areas, should have a 6-inch gap along the bottom to prevent the restriction of wildlife movement. Woven wire or a suitable habitat wildlife friendly fence should be used. Barbed wire should be avoided.

Trees should be cleared between November 1st and March 31st. All night lighting should follow IDA guidance.

Illinois Department of
Natural Resources

JB Pritzker, Governor

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

Natalie Phelps Finnie, Director

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.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, 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, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Isabella Newingham

Isabella Newingham
Division of Ecosystems and Environment
217-785-5500

McHENRY-LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

NATURAL RESOURCES INFORMATION REPORT

25-051-4712

June 27, 2025

This report has been prepared for:
Skystone Solar LLC

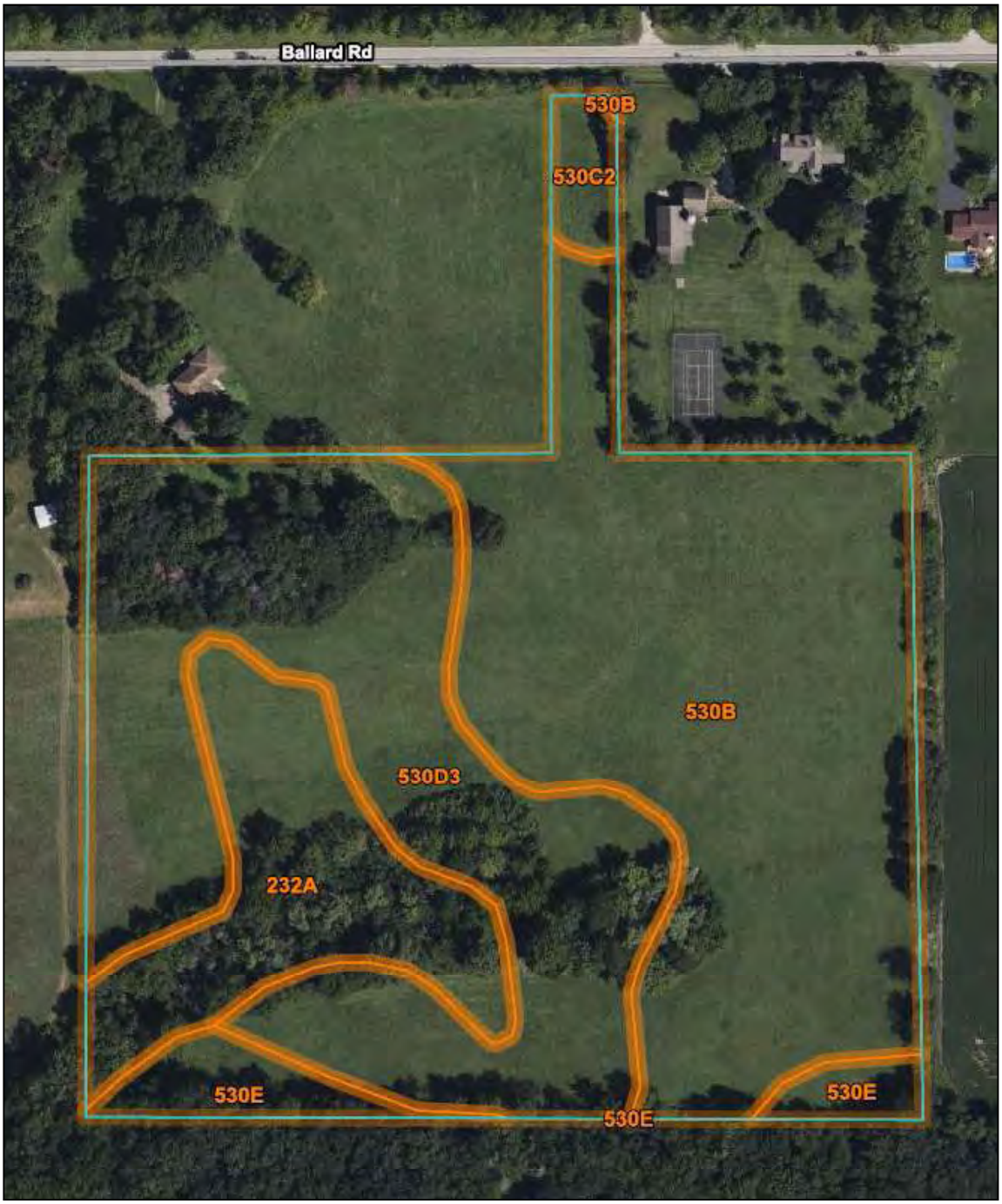
Contact Person:
Paul Bottum

PREPARED BY:
McHENRY-LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT
1648 S. EASTWOOD DR.
WOODSTOCK, IL 60098
PHONE: (815) 338-0444
www.mchenryswcd.org

The McHenry-Lake County Soil & Water Conservation District is an equal opportunity provider and employer.

EXECUTIVE SUMMARY OF NRI REPORT #25-051-4712

It is the opinion of the McHenry-Lake County Soil and Water Conservation District Board of Directors that this report as summarized on these pages are pertinent to the requested zoning change.



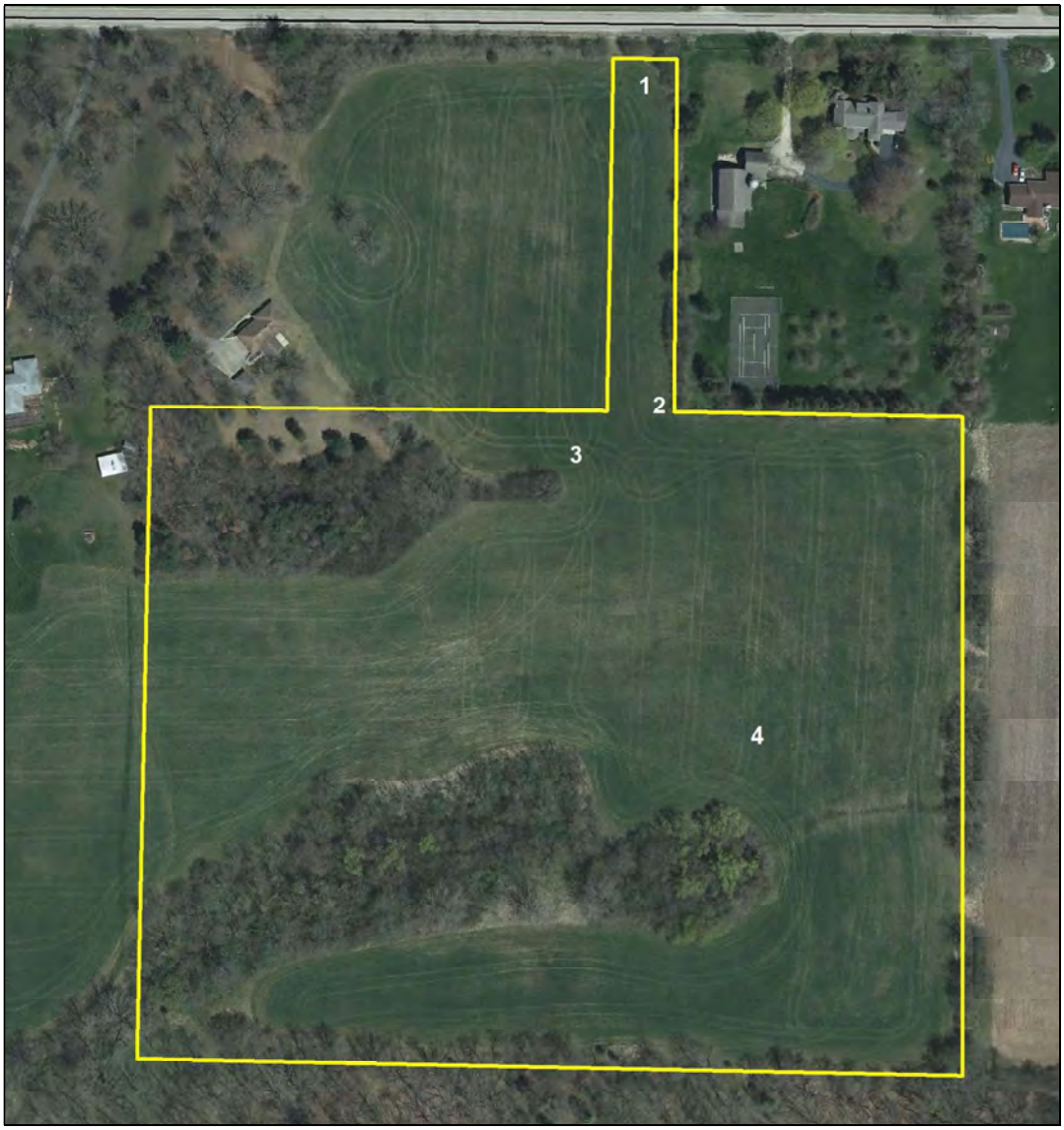


Photo Locations (1-4)



Picture 1: Looking south from the parcel entrance.



Picture 2: Looking south, south of access lane.

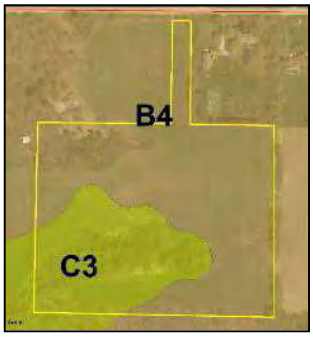


Picture 3: Looking west at woodland area.



Picture 4: Looking southwest at wooded wetland area.

Groundwater Contamination Potential and Recharge Areas:



Aquifer Sensitivity Map (*This is the area beneath the soil profile down to bedrock)
The Geologic features map indicates the parcel is comprised of 13.34 acres of B4 and 6.69 acres of C3 geologic limitations. B4 has a moderately-high aquifer contamination potential and C3 has a moderate aquifer contamination potential.

Sensitive Aquifer Recharge Areas (Includes the soil profile and underlying geology).
The Sensitive Aquifer Recharge Map indicates the parcel is not within an area designated as Sensitive Aquifer Recharge.

Soil Leachability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet).
The Soil Leachability Index indicates there are no high leachable soils, for fertilizers, on the parcel.

Soil Permeability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet. Soil permeability is a reflection of the speed in which water (with or without pollutants) can move through the soil profile.)
The USDA-NRCS Soil Survey Map of the area indicates there are no highly permeable soils on the parcel.

Soil Limitations (This evaluates the parcel from the surface down to approximately 5 feet.):

Erosion Ratings
The NRCS Soils Survey indicates 8.7 acres or 43.4% of the parcel contains highly erodible soils.



Prime Farmland Soils
The Natural Resources Conservation Service (NRCS) Soil Survey indicates 8.9 acres or 44.6% of the parcel is comprised of prime farmland soils and 2.7 acres or 13.6% of the parcel is comprised of prime farmland if drained soils (identified in shades of green).



Ground-Based Solar Arrays
The Natural Resources Conservation Service (NRCS) Soil Survey indicates 3.6 acres or 18.1% of the parcel has very limited soils for ground-based solar arrays (identified in red).



Hydric Soils
The NRCS Soil Survey indicates 2.7 acres or 13.6% of the parcel contains hydric soils (identified in orange). .

Floodplain Information:

The Flood Insurance Rate Map
Indicates the parcel is outside of the 100-year floodplain.

Flood of Record Map (Hydrologic Atlas)
The Flood of Record Map for this area indicates the parcel has not previously flooded.

Wetland Information:



USDA-NRCS Wetland Inventory
The NRCS Wetlands Inventory identifies 1.70 acres of NIH: Non-inventoried Hydric Soil on the parcel (identified in purple).



ADID Wetland Inventory
The ADID Wetland Study identified 1.70 acre of wetland K1135 on the parcel.

*As we were not provided a site plan, it is unclear whether this area will be impacted. The site visit conducted indicated that this area contains willow trees and elderberry. A wetland delineation is recommended if work is planned within this area. Permitting requirements from the McHenry County Department

of Planning and Development and the US Army Corps of Engineers may apply.

Flooding Frequency
The NRCS Soil Survey indicates that flooding is not probable on the parcel. The chance of flooding is nearly 0% in any year. Flooding occurs less than once in 500 years.



Ponding Frequency
The NRCS Soil Survey indicates that frequent ponding occurs on 2.7 acres or 13.6% of the parcel. Frequent means that ponding occurs, on average, more than once in 2 years. The chance of ponding is more than 50 % in any year (identified in blue).

Cultural Resources: Office maps indicate there are no known cultural/historical features on the parcel in question.



Preserved or Recognized Ecological Sites: Office maps indicate there are two McHenry County Natural Area Inventory sites near the parcel (identified in green).

Route 14/176 Marsh is an unprotected basin marsh, which it threatened by cattail expansion and Reed Canary Grass.

Foster Road Hawk Site is an unprotected site which is threatened by development.

Additionally, The Land Conservancy of McHenry County's Woodland Hills Easement is east of the parcel (identified in blue).



Woodlands: The McHenry County Conservation District's Remnant Oak Woodland Study indicates 0.24 acres of the northwest corner of the property contains a remnant oak woodland (see picture 3). There are additional mature trees surrounding the remnant woodland and in the central portion of the parcel (see picture 4).

*As we were not provided a site plan, it is unclear whether these woodland areas will be impacted. We recommend that these areas be avoided.

Agricultural Areas: Office Maps indicate there are no State designated agricultural areas on the parcel in question.

Land Evaluation Site Assessment (LESA)
The Land Evaluation Score for the parcel is 72.22. A Site Assessment was not completed due to the Agricultural zoning on the parcel.

Agricultural Impact Mitigation Agreement: We have received notice from the Illinois Department of Agriculture that an Agricultural Impact Mitigation Agreement has been filed.

ADDITIONAL CONCERNS

The Board recommends that areas between panels and within the buffers be planted to a native prairie mix to help increase water infiltration and reduce runoff from the site. It is recommended that a planting and maintenance plan be developed with the landowner to ensure that noxious weeds are controlled, and native plantings are properly installed and managed. The petitioner should refer to the planting requirements of the Illinois Department of Natural Resources and McHenry County Department of Planning & Development.

NATURAL RESOURCE INFORMATION REPORT (NRI)

NRI Report Number	25-051-4712
Applicant's Name	Skystone Solar LLC
Size of Parcel	26 acres
Zoning Change	Solar Facility
Parcel Index Number(s)	18-04-200-005
Common Location	Undefined
Contact Person	Paul Bottum

Copies of this report or notification of the proposed land-use change were provided to:	***yes***	***no***
The Applicant	x	
The Applicant's Legal Representation/Consultant		x
The Village/City/County Planning and Zoning Department or Appropriate Agency	x	

Report Prepared By: *Spring M. Duffey* Position: *Executive Director*

Contents *Page*

PURPOSE & INTENT..... 3

PARCEL LOCATION..... 4

ARCHAEOLOGIC/CULTURAL RESOURCES INFORMATION..... 5

ECOLOGICALLY SENSITIVE AREAS..... 5

WOODLANDS..... 10

GEOLOGIC INFORMATION..... 11
AQUIFER SENSITIVITY MAP..... 11
SENSITIVE AQUIFER RECHARGE AREAS..... 12

SOILS INFORMATION..... 13
SOILS MAP..... 14
SOIL MAP UNIT DESCRIPTIONS..... 15

SOILS INTERPRETATIONS EXPLANATION..... 15
SOIL LEACHABILITY..... 16
SOIL PERMEABILITY..... 20

SOIL EROSION & SEDIMENT CONTROL..... 21

PRIME FARMLAND SOILS..... 22

SOLAR ARRAYS..... 24

AGRICULTURAL AREAS..... 28
LAND EVALUATION AND SITE ASSESSMENT (LESA)..... 28
LAND USE PLANS..... 29

DRAINAGE, RUNOFF AND FLOOD INFORMATION..... 30
FLOOD OF RECORD MAP..... 32
2 FOOT TOPOGRAPHIC MAP..... 33
FLOOD INSURANCE RATE MAP..... 34
WATERSHED PLANS..... 35

WETLAND INFORMATION..... 37
NRCS WETLAND MAP..... 38
ADID WETLANDS..... 39
HYDRIC SOILS..... 41
FLOODING FREQUENCY..... 44
PONDING FREQUENCY..... 46
WETLAND AND FLOODPLAIN REGULATIONS..... 48

THREATENED & ENDANGERED SPECIES..... 49

GLOSSARY..... 50

REFERENCES..... 52

PURPOSE AND INTENT

The purpose of this report is to inform 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:

McHenry-Lake County Soil & Water Conservation District
1648 S. Eastwood Dr.
Woodstock, IL 60098
Phone: (815) 338-0444 ext. 3
www.mchenryswcd.org
E-mail: Spring.Duffey@il.nacdnet.net

PARCEL LOCATION

Location Map for Natural Resources Information Report # 25-051-4712

In the Northeast Quarter of Section 4, Township 43 North, Range 7 East, on 26 acres. This parcel is located on the south side of Ballard Road, east of the intersection of Ballard Road and Illinois Route 47, McHenry County, IL.



ARCHAEOLOGIC/CULTURAL RESOURCES

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 of 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.

Office maps indicate there are no known cultural/historical features on the parcel in question. (PIQ)

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

[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

midwestem 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 well being, 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

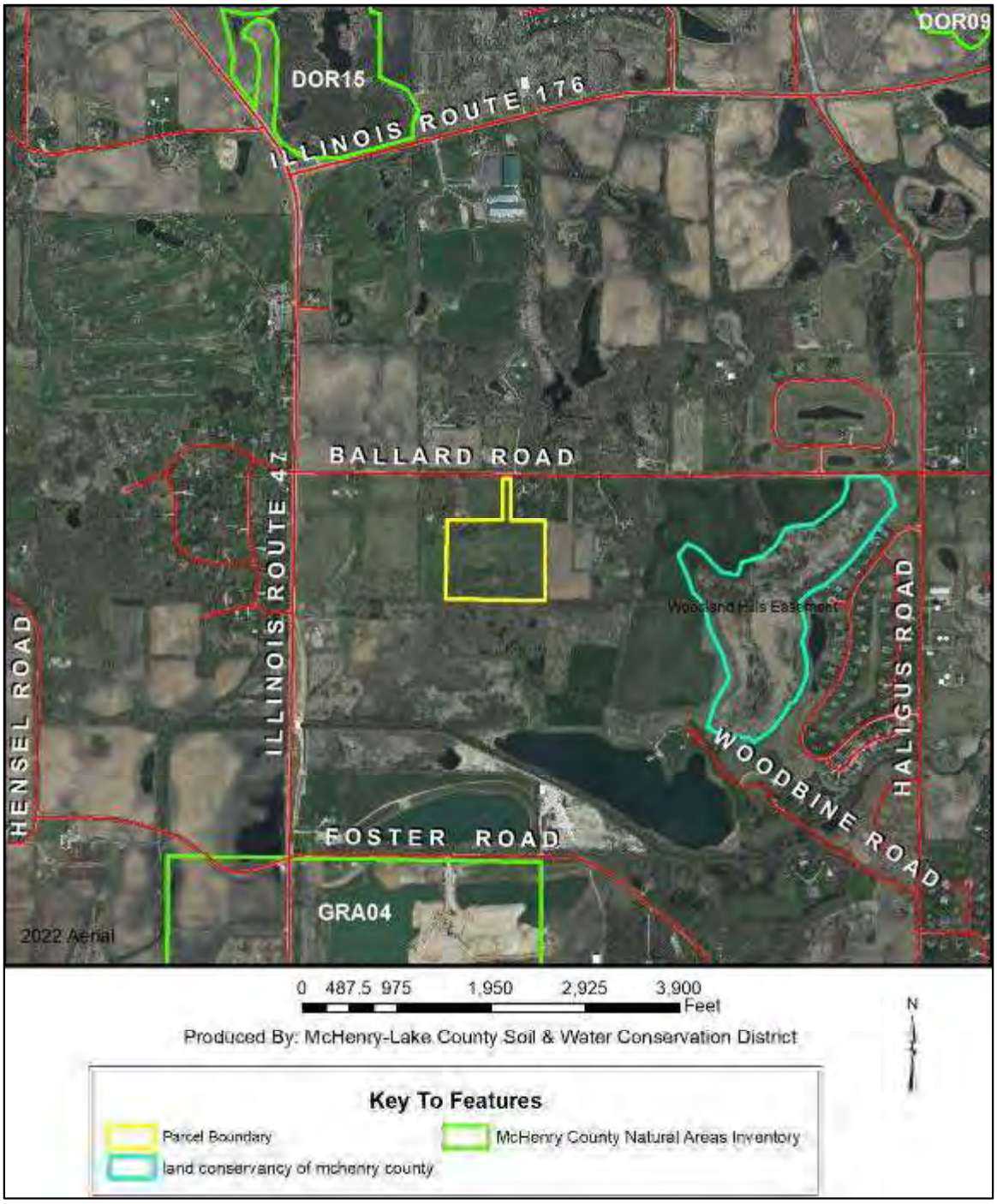
As part of the Natural Resources Information Report, staff checks office maps to determine if any nature preserves are within 500 feet of the parcel in question. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort 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 there are two McHenry County Natural Area Inventory sites near the parcel.

Route 14/176 Marsh is an unprotected basin marsh, which it threatened by cattail expansion and Reed Canary Grass.

Foster Road Hawk Site is an unprotected site which is threatened by development.

Additionally, The Land Conservancy of McHenry County's Woodland Hills Easement is east of the parcel.


DOR09
DOR15
ILLINOIS ROUTE 176
BALLARD ROAD
ILLINOIS ROUTE 47
HENSEL ROAD
Woodland Hills Easement
HALIGUS ROAD
WOODBINE ROAD
FOSTER ROAD
GRA04
2022 Aerial
0 487.5 975 1,950 2,925 3,900
Feet
N
Produced By: McHenry-Lake County Soil & Water Conservation District
Key To Features
Parcel Boundary
McHenry County Natural Areas Inventory
land conservancy of mchenry county


M.C.N.A.I.
2005
Route 47-176 Marsh
DOR15
MCCD-NRM
Base map: 2001 aerial photo
Site last visited: 1998
Map Date: 3/9/05
Feet
0 250 500 750 1,000
Meters
0 100 200 300
Township: Dorr
Section: 33
Former ID: K1008
Pleasant Valley Rd.
IL 176
IL 47
DOR17
Lucas Rd
Dorr Rd
Dean St
DOR14
Rte 47
DOR12
DOR11
Mc Thaler Rd
DOR15
DOR09
Hentpin Rd
GRA07
Hensel Rd
Ballard Rd
McHenry County


Foster Road Hawk Site
GRA04
M.C.N.A.I.
2005
MCCD-NRM
Base map: 2001 aerial photo
Site last visited: 1998
Map Date: 3/9/05
Feet
0 300 600 900 1,200
Meters
0 100 200 300
Township: Grafton
Section: 9
Former ID: KD
Foster Rd.
Conley Rd.
IL-47
DOR15
GRA07
Hansel Rd
Hawthorn Rd
Ballard Rd
Foster Rd
GRA04
Conley Rd
North Union Rd
Hilgus Rd
GRA05
McHenry County

WOODLANDS



The McHenry County Conservation District's Remnant Oak Woodland Study indicates 0.24 acres of the northwest corner of the property contains a remnant oak woodland. Existing mature trees should be preserved whenever possible. Woodlands provide a large number of benefits such as wildlife habitat, erosion control, air and water quality improvements, as well as aesthetic values. Construction activities can indirectly destroy trees. Oak trees are particularly susceptible to long term, permanent damage caused by construction activities and require special consideration. It is also recommended that invasive non-native species be removed whenever possible.

Native woodlands are no longer a common occurrence throughout much of McHenry County. Although forests originally covered nearly 40% of Illinois, today only about 12% of the state is forested, with most of this being secondary growth (Ill. Natural History Survey Reports, Nov/Dec 1993, No. 324). The composition of Illinois forests has changed markedly over the past three decades. 97% of the timberland is classified as hardwood forest. The forest acreage continues to increase from 4.2 million acres in 1985 to 4.3 million acres in 1998. (IL Forest Development Council News, IL DNR, Winter 2001/Volume 2, No. 1). Oak-hickory forests, which had made up half of the acreage, have declined by 14%, and make up 2.1 million acres. This decline is largely a result of wildfire suppression that allows maples to take over. Thus, the acres of maple-beech forest have risen more than 40-fold from 1962 to 1985, to one quarter of the total forest area, 696 thousand acres. Dutch elm disease and the conversion of forested bottomlands to agriculture have resulted in huge declines in the elm-ash-cottonwood forests, 906 thousand acres, falling from one third - one sixth of the Illinois forest area. Elm accounts for the greatest number of individual trees – 412 million. Other species groups with more than 100 million trees include hickory, red oak, sugar/black maple, ash, hackberry, and black cherry.

Woodlands provide many benefits such as wildlife habitat, erosion control, air and water quality improvements, and aesthetic values. Forests are responsible for much of the biological diversity in the state. Many species are dependent upon forests for food & shelter, including threatened/endangered species.

One of the most serious problems facing Illinois forests is the invasion of exotic plants and animals. Some of the most damaging plants includes European buckthorn, multiflora rose, honeysuckle, purple loosestrife, and garlic mustard.

Many trees, particularly hardwoods (especially oaks) are extremely sensitive to construction-induced disturbances. The area most susceptible to damage is within the "drip radius," the ground surface directly beneath the leafy canopy of the tree. Many trees have an extensive system of feeder roots, located within one foot of the surface, and supply the tree with the majority of its moisture and nutrient needs.

Construction activities can negatively impact trees in several different ways. Earth-moving activities that stockpile soil near trees can suffocate tree roots that, although buried, require oxygen. Vehicle traffic can compact the soil to a point where the roots no longer function effectively. Grading activities for road cuts and foundations can cause a localized drop in the water table, placing the trees under stress. The

placement of pavement or stormwater management facilities near established trees can also radically change soil moisture. The removal of the accumulated organic materials normally present on a woodland floor, and the subsequent establishment of turf lawns, can drastically affect the soil temperature and nutrient balance. Injury to the bark of a tree can increase the chance of the tree being subjected to a potentially harmful disease.

If existing trees are to be maintained in a healthy state, the appropriate planning is necessary. Someone with a working knowledge of forestry should assess existing trees to determine which trees should be protected. Some tree species are not considered desirable due to their aggressive growth, behavior, and limited value to local wildlife. Proper management of woodlands and open space includes the selective elimination of such trees and replacement by more desirable species. **Trees that are to be saved should be marked and protected with snow fencing or similar material, installed around the drip radius, to prevent root damage,** and vehicle traffic should be minimized around the drip line. Contractors should be informed of the intention to preserve trees and be expected to conduct their work accordingly.

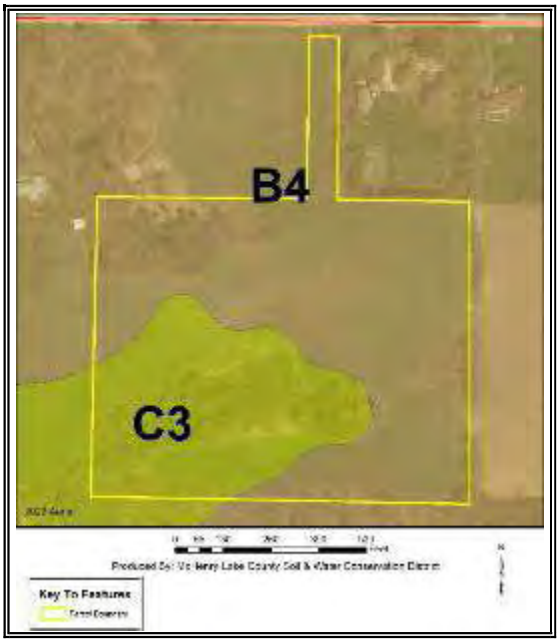
Tree damage resulting from construction activities may not be apparent for a number of years. While it is recognized that some tree loss is unavoidable, this should be minimized to the extent possible. It is highly recommended that trees lost to development activity be replaced by younger specimens of the native trees now found on the PIQ.

GEOLOGIC INFORMATION

Geology and the Proposed Land Use

As density of septic systems increases, the concern for pollution potential of local groundwater rises. Local geology plays an important role in determining the pollution potential. Groundwater pollution potential is an important factor when determining a specific area's suitability for a given land use. The local geology, is an important element of the natural resource base. This information, when compared to soils information, gives a clearer picture of conditions on this parcel.

Geological data comes from the Illinois State Geological Survey Circular 559, *Geologic Mapping for Environmental Planning, McHenry County, Illinois.*



Aquifer Sensitivity, McHenry County, Illinois (e.g., septic systems) (Vaiden et al.)

The Geologic features map indicates the parcel is comprised of 13.34 acres of B4 and 6.69 acres of C3 geologic limitations.

B-4: Geologic limitations. The potential for contamination is moderately high. Groundwater in these thin sand and gravel deposits is not commonly tapped for water resource; however, contaminated groundwater may flow into aquifers of adjoining units, or it may migrate through the sand and gravel, especially along the contact with underlying fine-grained deposits, and discharge on slopes or into surface-water bodies. (Contains less than 20 feet fine-grained materials overlying less than 20 feet Henry sand and gravel.)

C-3. Geologic limitations. The potential for contaminating shallow aquifers is moderate. Fine-grained materials 20-50 feet thick offer moderate protection for underlying aquifers (particularly where the Yorkville and /or Tiskilwa diamictons overlie the sand and gravel) from waste spreading or septic systems. For example it was reported that pesticide and nitrate detections in Illinois were significantly fewer where aquifers were buried 20-50 feet than where aquifers where shallower. (Contains 20-50 feet fine-grained materials overlying generally less than 20 feet sand and gravel.)

SENSITIVE AQUIFER RECHARGE AREAS

Developed for McHenry County in 2008 and revised in 2018 is the “McHenry County Sensitive Aquifer Recharge Areas” map. Because McHenry County is 100% reliant on groundwater and has been experiencing groundwater quantity/quality issues, the county board in 1995 authorized a groundwater investigation/report titled “County of McHenry Groundwater Resources Management Plan”. Many facts in that report startled decision makers. For example, the report found that in 2000, one township was withdrawing groundwater at unsustainable rates and by 2030 if status-quo, three townships would be doing the same and that three other townships would be approaching that un-sustainability. In 2007, the County Board hired a full time Water Resources Manager and authorized the creation of the McHenry County Groundwater Task Force. The Recharge Subcommittee of the Groundwater Task Force was charged with identifying areas within the county that could be considered to have high potential for recharge of shallow groundwater and develop recommendations for protecting those areas in terms of both quantity and quality. The original main basis for the map identifying recharge is areas of high or moderately high potential for aquifer contamination as identified in the Illinois State Geological Survey’s Circular 559, “Geologic Mapping for Environmental Planning, McHenry County, IL”. In a meeting of the recharge subcommittee, Illinois State Geological Survey and Illinois State Water Survey, it was determined that the areas of high or moderately high potential for aquifer contamination could be qualified by using soil properties. The plan was to remove from the high and moderately high areas those soils with slow permeability, steep slopes and hydric soils that discharge groundwater. Using Table 6 of the Soil Survey of McHenry County a digital layer was developed of soil properties:

- Restricted permeability
- Slopes 4% or greater (except if the soil had excessive permeability, it was not included)

Also digitized were groundwater discharge hydric soils. NRCS Illinois Area 3 Resource Soil Scientists in 2002 developed a hydric soil recharge/flow through/discharge guide to use when designing wetland restoration. Because recharge/flow through/discharge is very complex and changes depending on the year only soils that were thought to be generally only groundwater discharge were used.

Subsequent to the original map development, 3D groundwater modeling has occurred and provided more precise groundwater flow data and thus was the basis for the 2018 map update. *(Information Courtesy of the McHenry County Groundwater Taskforce – Recharge Subcommittee.)*

**A Check of the resource map indicates the parcel is not within a Sensitive Aquifer Recharge Area.*

SOILS INFORMATION

Importance of Soils Information

Soils information comes from Natural Resources Conservation Service Soil Maps and Descriptions for McHenry 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 (slight, moderate or severe) 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 in order to complete the proposed activity successfully. A severe limitation indicates that the proposed activity will be more difficult and costly to do on that soil type than on a soil type with a moderate or slight 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 delineations.


Soil Map—McHenry County, Illinois
(Parcel Boundary)
88° 25' 1" W
88° 24' 45" W
42° 14' 14" N
42° 13' 58" N
383080
383140
383200
383260
383320
383380
383440
4577030
4577000
4576970
4576940
4576910
4576850
4576790
4576730
4576670
4576610
Ballard Rd
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
Meters
0
35
70
140
210
Feet
0
100
200
400
600
N
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Map Unit Symbol	Map Unit Name	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes	0.9	4.5%

Soil Interpretations Explanation

Nonagricultural

General

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 slight, moderate, and severe 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 to be unsuitable for all types of construction.

Limitations Ratings

1. ***Slight*** - This soil has favorable properties for the use. The degree of limitation is minor. The people involved can expect good performance and low maintenance.
2. ***Moderate*** - 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.
3. ***Severe or Very Severe***- 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.

SOIL LEACHABILITY

This interpretation is designed to evaluate the potential for nitrate-nitrogen to be transmitted through the soil profile below the root zone by percolating water under nonirrigated conditions. Leaching nitrates have the potential to contaminate shallow and deep aquifers used for drinking water. The ratings are based on inherent soil and climate properties that affect nitrate leaching and do not account for management practices, such as crop rotation and rates and timing of nitrogen fertilizer applications.

The following soil and climate factors are used in the interpretation criteria:

1. Mean annual precipitation minus potential evapotranspiration - This factor provides an estimate of the amount of water that is available to move through the soil profile on an annual basis. Potential evaporation is estimated from mean annual air temperature using an algorithm (developed by the National Soil Survey Center) that employs the Hamon potential evapotranspiration method.

2. Water travel time through the entire soil profile - This factor uses the saturated hydraulic conductivity (Ksat) and thickness of each soil horizon to estimate the number of hours that would be required for a given volume of water to move through the entire soil profile. One advantage of this method for estimating the rate of water movement is that the properties and thickness of each soil horizon are accounted for instead of using an average saturated hydraulic conductivity for the entire profile. This method accounts for subtle differences between soils in texture, structure, horizon thickness, and depth to water-restricting layers.

3. Available water capacity - This factor accounts for the cumulative amount of water available to plants that the entire soil profile can hold at field capacity to a depth of 150 cm. The more water the soil profile can hold, the less water is available for deep leaching.

4. Depth to and duration of a water table - This factor uses a water table index based on the minimum average depth to a water table and the number of months that the water table is present during the period from April through October. The factor is used to account for the loss of nitrates to the atmosphere as nitrous oxide or nitrogen gas due to denitrification under anaerobic conditions caused by water saturation. The higher the water table and the longer its duration, the larger the quantity of nitrates that would potentially be lost to the atmosphere and therefore would not be available for deep leaching.

5. Slope gradient adjusted for hydrologic soil group - The steeper the slope gradient, the higher the potential for surface runoff and the lower the amount of water available to move through the soil profile. The following adjustments are made to the slope gradient by hydrologic group to account for differences in potential for surface runoff:

Hydrologic group A-slope % x 0.75

Hydrologic group B-slope % x 0.85

Hydrologic group C-slope % x 0.95

Hydrologic group D-no adjustment

The ratings are both verbal and numerical. The ratings for Nitrate Leaching Potential, Nonirrigated Areas, are calculated as follows:

- The Mean Annual Precipitation minus Potential Evapotranspiration subrule is weighted by multiplying by 0.60.
- The Water Travel Time subrule is weighted by multiplying by 0.25.
- The Available Water Capacity subrule is weighted by multiplying by 0.15.
- The sum of these three weighted subrules results in a value between 0.00 and 1.00.
- Adjustments are then made for water table depth and duration and for slope gradient adjusted for hydrologic group. The sum of the values from these subrules is subtracted from the sum in step 4 above. The maximum reduction is 0.50 for the water table index subrule and 0.30 for the slope gradient subrule.

The following rating classes for Nitrate Leaching Potential, Nonirrigated Areas, are assigned based on the final calculation from the factors above:

Low: 0.00 to 0.25

Moderate: 0.26 to 0.50

Moderately high: 0.51 to 0.75High: 0.76 to 1.00

The ratings indicate the potential for nitrate leaching below the root zone, based on inherent soil and climate properties. A "low" rating indicates a low potential for leaching of nitrates below the root zone. A "high" rating indicates a high potential for leaching of nitrates below the root zone. The "moderate" and "moderately high" ratings indicate intermediate potential.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.


Nitrate Leaching Potential, Nonirrigated—McHenry County, Illinois
(Parcel Boundary)
Ballard Rd
Soil Rating Polygons
High
Moderately high
Moderate
Low
Not rated or not available
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
Meters
0 35 70 140 210
Feet
0 100 200 400 600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Nitrate Leaching Potential, Nonirrigated

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent I
232A	Ashkum silty clay loam, 0 to 2 percent slopes	Low	Ashkum, drained (92%)	Water quantity available for leaching (1.00)	2.7	13.6%
				Denitrification due to saturation (0.50)		
				Water holding capacity (0.48)		
			Peotone, drained (5%)	Water quantity available for leaching (1.00)		
				Denitrification due to saturation (0.50)		
				Water holding capacity (0.05)		
530B	Ozaukee silt loam, 2 to 4 percent slopes	Moderately high	Ozaukee (94%)	Water quantity available for leaching (1.00)	8.6	42.9%
				Water holding capacity (0.67)		
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	Moderately high	Ozaukee, eroded (96%)	Water quantity available for leaching (1.00)	0.3	1.7%
				Water holding capacity (0.73)		
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	Moderately high	Ozaukee, severely eroded (92%)	Water quantity available for leaching (1.00)	7.5	37.2%
				Water holding capacity (0.79)		
			Chatsworth, severely eroded (2%)	Water quantity available for leaching (1.00)		
				Water holding capacity (0.72)		
530E	Ozaukee silt loam, 12 to 20 percent slopes	Moderately high	Ozaukee (96%)	Water quantity available for leaching (1.00)	0.9	4.5%
				Water holding capacity (0.64)		
				Slope (0.05)		

Rating	Acres	Percent
Moderately high	17.3	86.4%
Low	2.7	13.6%

SOIL PERMEABILITY

Soil permeability is the quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality.

For the purposed of the NRI Report, those soils which have “rapid” to “very rapid” permeability, have been identified as “highly permeable.”

Terms describing permeability, measured in inches per hour, are as follows:

Extremely slow ..... 0.0 to 0.01 inch
Very slow ..... 0.01 to 0.06 inch
Slow ..... 0.06 to 0.2 inch
Moderately slow ..... 0.2 to 0.6 inch
Moderate ..... 0.6 inch to 2.0 inches
Moderately rapid ..... 2.0 to 6.0 inches
Rapid ..... 6.0 to 20 inches
Very rapid ..... more than 20 inches

Highly Permeable Soils

Map Unit Symbol	Highly Permeable	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes - No	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes - No	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded - No	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded - No	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes – No	0.9	4.5%
Total Highly Permeable Soils		**0.0**	**0.0%**

SOIL EROSION & 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:

1. Texture 2. Slope 3. Structure
4. 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 or diverting flow from exposed areas, storing flows or limiting runoff from exposed areas,
- staging construction in order to keep disturbed areas to a minimum,
- establishing or maintaining or temporary or permanent groundcover,
- retaining sediment on site and
- properly installing, inspecting and maintaining control measures.

Erosion control practices are useful controls only if they are properly located, installed, inspected and maintained.
The SWCD recommends an erosion control plan for all building sites, especially if there is a wetland or stream nearby.

Highly Erodible Soils (HEL)

Highly Erodible Soils (HEL)

Map Unit Symbol	HEL	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes – Non-HEL	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes – Non-HEL	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded - HEL	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded - HEL	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes – HEL	0.9	4.5%
Total Highly Erodible Soils		8.7	43.4%

PRIME FARMLAND SOILS

Prime farmland soils are an important resource to McHenry 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 soils map units on the parcel reflect the determination that urban or built up land on prime farmland soils is not prime farmland.

Prime Farmland Soils

Map unit symbol	Map unit name	Rating	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes	Prime farmland if drained	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes	All areas are prime farmland	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	All areas are prime farmland	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	Farmland of statewide importance	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes	Not prime farmland	0.9	4.5%
Total Prime Farmland			**8.9**	**44.6%**
Total Prime if Drained			**2.7**	**13.6%**


Farmland Classification—McHenry County, Illinois
(Parcel Boundary)
Ballard Rd
Soil Rating Polygons
Not prime farmland
All areas are prime farmland
Prime farmland if drained
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
Meters
0 35 70 140 210
Feet
0 100 200 400 600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

GROUND-BASED SOLAR ARRAYS, SOIL-PENETRATING ANCHOR SYSTEMS

Description

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 into the soil to provide a stable foundation. The ease of installation and general site suitability of soil-penetrating anchoring systems depends on soil characteristics such as rock fragment content, soil depth, soil strength, soil corrosivity, shrink-swell tendencies, and drainage. The other basic anchoring system utilizes precast ballasted footings or ballasted trays on the soil surface to make the arrays too heavy to move. The site considerations that impact both basic systems are slope, slope aspect, wind speed, land surface shape, flooding, and ponding. Other factors that will contribute to the function of a solar power array include daily hours of sunlight and shading from hills, trees or buildings.

Soil-penetrating anchoring systems can be used where the soil conditions are not limited. Installation of these systems requires some power equipment for hauling components and either driving piles, turning helices, or boring holes to install the anchoring apparatus.
Soils can be a non-member, partial member or complete members of the set of soils that are limited for "Ground-based Solar Panel Arrays". If a soil's property within 150 cm (60 inches) of the soil surface has a membership indices greater than zero, then that soil property is limiting and the soil restrictive feature is identified. The overall interpretive rating assigned is the maximum membership indices of each soil interpretive property that comprise the "Ground-based Solar Panel Array" interpretive rule. Minor restrictive soil features are identified but not considered as part of the overall rating process. These restrictive features could be important factors where the major restrictive features are overcome through design application.

Soils are placed into interpretive rating classes per their rating indices. These are not limited (rating index = 0), somewhat limited (rating index greater than 0 and less than 1.0), or very limited (rating index = 1.0).

Numerical ratings indicate the degree of limitation. The ratings are shown in decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil has the least similarity to a good site (1.00) and the point at which the soil feature is very much like known good sites (0).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

References:
Canada, S. 2012. Corrosion impacts on steel piles. Solarpro. Solarprofessional.com.

Romanoff, Melvin. 1962. Corrosion of Steel Pilings in Soils. Journal of Research of the National Bureau of Standards. (Volume 66C, No. 3). July/September, 1962.


Solar Arrays, Soil-based Anchor Systems—McHenry County, Illinois
(Parcel Boundary)
Soil Rating Polygons
Very limited
Somewhat limited
Not limited
Not rated or not available
Ballard Rd
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
Meters
0 35 70 140 210
Feet
0 100 200 400 600
N
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Solar Arrays, Soil-based Anchor Systems

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes	Very limited	Ashkum, drained (92%)	Ponding (1.00)	2.7	13.6%
				Depth to saturated zone (1.00)		
				Shrink-swell (1.00)		
				Frost action (1.00)		
				Low strength (0.97)		
			Peotone, drained (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Shrink-swell (1.00)		
				Frost action (1.00)		
				Low strength (1.00)		
			Orthents, clayey (2%)	Shrink-swell (1.00)		
				Low strength (1.00)		
				Steel corrosion (0.75)		
				Frost action (0.50)		
				Hillslope position (0.25)		
530B	Ozaukee silt loam, 2 to 4 percent slopes	Somewhat limited	Ozaukee (94%)	Steel corrosion (0.75)	8.6	42.9%
				Frost action (0.50)		
				Hillslope position (0.25)		
				Slope shape across (0.20)		
				Low strength (0.15)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	Somewhat limited	Ozaukee, eroded (96%)	Steel corrosion (0.75)	0.3	1.7%
				Frost action (0.50)		
				Low strength (0.18)		
				Hillslope position (0.13)		
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	Somewhat limited	Ozaukee, severely eroded (92%)	Steel corrosion (0.75)	7.5	37.2%
				Frost action (0.50)		
				Hillslope position (0.13)		
				Low strength (0.09)		
				Slope direction and gradient (0.08)		
			Chatsworth, severely eroded (2%)	Steel corrosion (0.75)		
				Frost action (0.50)		
				Low strength (0.26)		
				Slope shape across (0.20)		
				Hillslope position (0.13)		
530E	Ozaukee silt loam, 12 to 20 percent slopes	Very limited	Ozaukee (96%)	Slope (1.00)	0.9	4.5%
				Steel corrosion (0.75)		
				Frost action (0.50)		
				Low strength (0.16)		
				Hillslope position (0.13)		
			Blount, Lake Michigan Lobe (4%)	Frost action (1.00)		
				Depth to saturated zone (0.99)		
				Steel corrosion (0.75)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
				Hillslope position (0.25)		
				Low strength (0.16)		

Rating	Acres	Percent
Somewhat limited	16.4	81.9%
Very limited	3.6	18.1%

AGRICULTURAL AREAS

The Agricultural Areas Conservation and Protect Act became effective July 1, 1980. The purpose of the Act is to provide a means by which agricultural land may be protected and enhanced as a viable segment of the State's economy and as an economic and environmental resource of major importance. Established Ag Areas tend to influence adjacent and surrounding land use changes since they are voluntary in nature and petitioned before the County Board for approval. Ag Areas are considered a high commitment to agriculture. Designated Ag Areas limit land utilization to specified agricultural uses within their designated boundaries. Ag Areas allow landowners limited benefits such as immunity form locally enacted ordinances, which would limit farming operations and immunity from special tax assessments from local units of government.

Office Maps indicate there are no State Designated agricultural areas on or adjacent to the parcel in question.

LAND EVALUATION & SITE ASSESSMENT (LESA)

The Land Evaluation and Site Assessment system is a tool designed to evaluate the viability of agricultural lands where changes in land-use are proposed. LESA was developed as a decision-making tool used by the Zoning Board of Appeals, City Councils or County Boards to help make unbiased decisions of proper land-use. The LESA system was developed by the USDA-NRCS and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, urban growth factors, and land-use policies determined by local government. LESA was designed to be used in conjunction with the county's land-use plan, zoning ordinances, and other policies being used to decide land-use changes.

Decision makers 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 is a two step procedure that includes:

- Land Evaluation (LE), soils value
- Site Assessment (SA), land use

Land Evaluation (**LE**) encompasses information regarding soils found on the site and their suitability for agricultural purposes. McHenry

County soils consist of 73 different soil series ranging from gravely loams to wet muck soils and from highly productive agricultural soils to high quality gravel deposits. For purposes of the Land Evaluation portion of the LESA system, each soil is assigned a relative value number, from 0 to 100, a 0 being the worst soils for crop production, 100 the best. Parcels containing higher percentages of higher valued soils will rate higher on the overall LESA score while those containing higher percentages lowered value soils will rate lower in the overall LESA score. McHenry County SWCD provides a weighted average of the soils using a simple, mechanical, unbiased method of determining agricultural suitability of soils on site.

Site Assessment (**SA**) identifies and weighs 10 criteria, other than soils information, that contributes to the quality of a site for agricultural uses. The determination to include the specific site assessment factors directly resulted from the following:

- McHenry County Zoning Ordinance,
- 2030 Land Use Plan,
- Other adopted county policies.

In summary, the LESA evaluation addresses all factors, including soils information, together to provide a rational, consistent, and unbiased determination of the impact to agriculture from the proposed land use and zoning changes.

LAND EVALUATION (LE) WORKSHEET

Map Unit Symbol	LE Score	Acres	Percent	Weighted Ave
232A	88	2.7	13.6%	11.97
530B	75	8.6	42.9%	32.18
530C2	71	0.3	1.7%	1.21
530D3	64	7.5	37.2%	23.81
530E	68	0.9	4.5%	3.06
Land Evaluation Score				**72.22**

Explanation of the LE Worksheet:

Symbol: is the soil type of the polygon on the soils map.
Percentage and Acreage: the percentages of the parcel, and the area that the soil polygon represents.
LE Score: the numeric value from 0 - 100 that is assigned that soil unit
Weighted Ave: The acreage multiplied by the value of that soil unit.

SITE ASSESSMENT (SA) WORKSHEET: A Site Assessment was not completed due to the remaining agricultural zoning.

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 give community.

This parcel is within the McHenry County 2030 Land Use Plan Map and is identified as Estate.

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 point that we use on these reports is usually the point where water exits the parcel. The point is marked with a "O." The watershed boundary is drawn in using the following marking: (— • • —). Often times, water will flow off the parcel in two or more directions. In that case, there is a watershed break on the parcel. (— • • —), and there are two or more watersheds on the parcel.

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 planimiter.

Using regional storm event information, and site specific soils and land use information, the peak stormwater flow through the point marked "O" 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 McHenry 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 down stream 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.

FIRM is the acronym for the Flood Insurance Rate Map, produced by the Federal Emergency Management Agency. These maps 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 flood plain location.) The FIRM map has three (3) zones. A is the zone of 100 year flood, zone B is the 100 to 500 year flood, and zone C is outside the flood plain.

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,

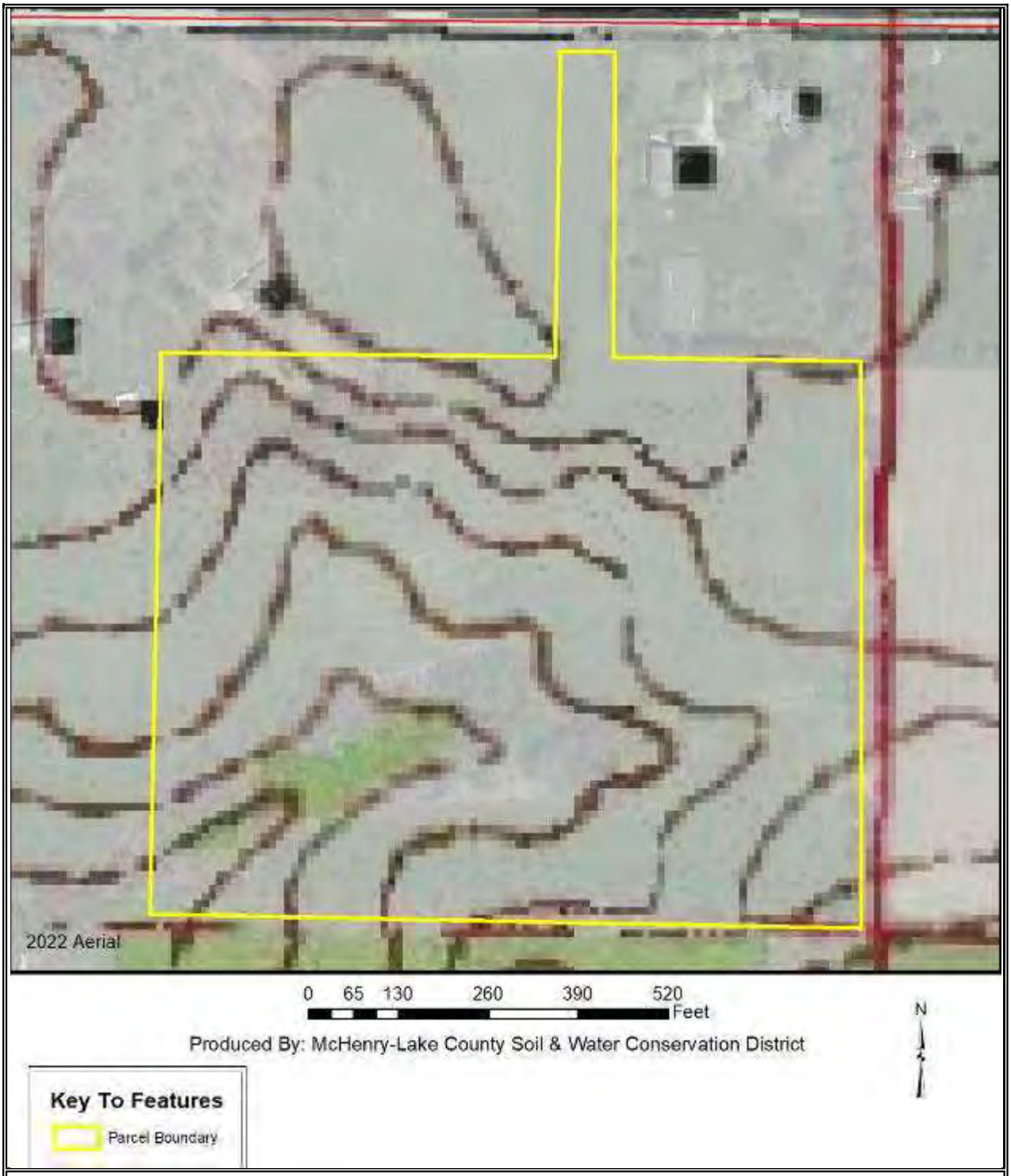
or pocketed flooded areas. McHenry County uses both these maps in conjunction with each other for flooded area determinations. The Flood of Record maps, show the areas of flood for various years. Both of these maps stress that the recurrence of flooding is merely statistical. That is to say a 100-year 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 IDOT-DWR 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 drainageways, 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. If the site does include these hydric soils and development occurs, thus raising the concerns of the loss of water storage in these soils and the potential for increased flooding in the area.

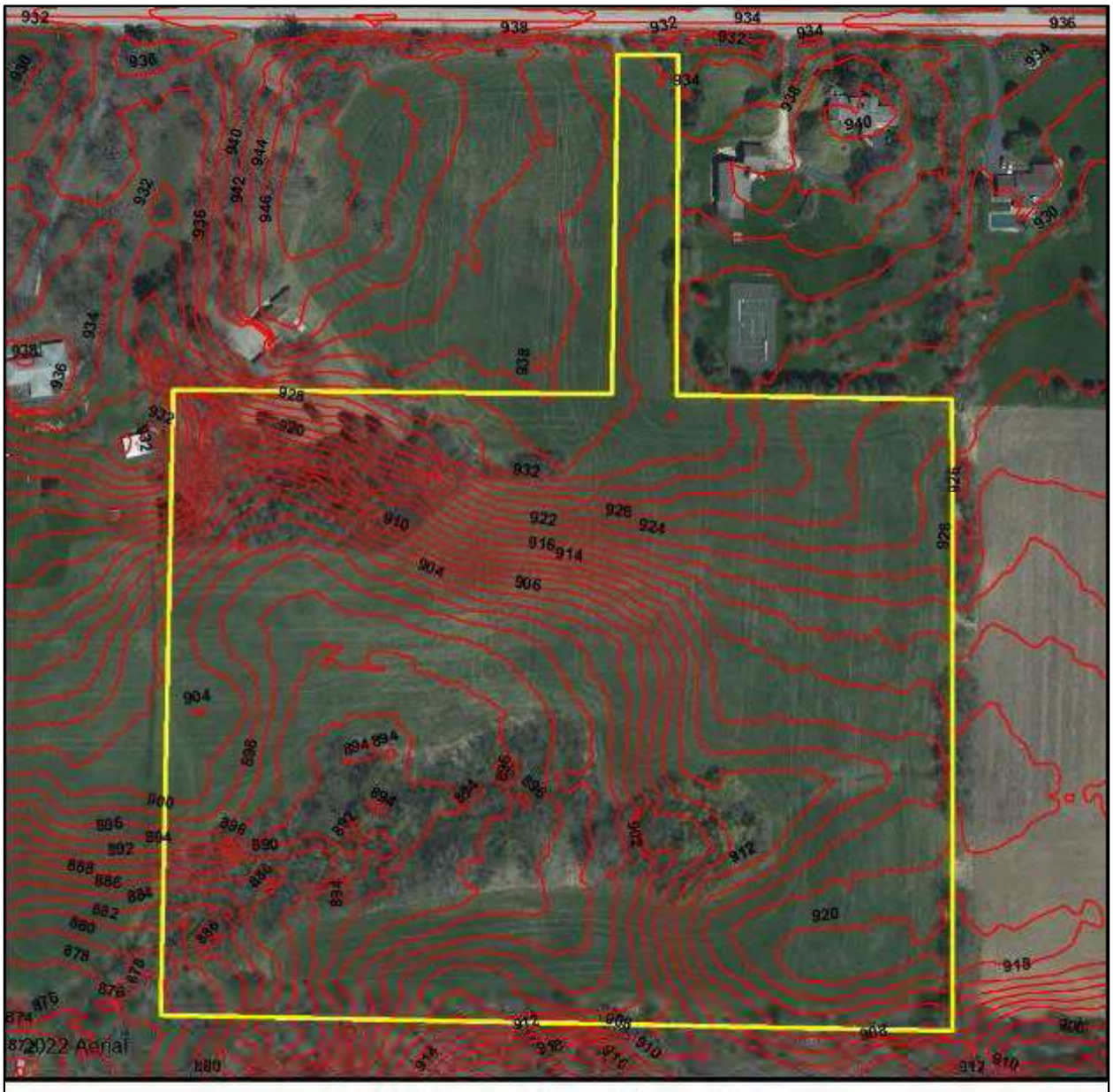


Flood of Record Map Showing Topographic Information

This parcel is located on sloping topography (slopes 0 to 20%) involving high and low areas (elevation ranges from 880' above sea level to 938' above sea level). An erosion control system should include a sedimentation basin to address these exiting concentrated flows during construction. The same area used for a sedimentation basin during construction can be used for a stormwater retention system after construction.

During construction, temporary vegetation can decrease erosion on the slopes if the area is to be mass graded.

Also, the flood of record for this area indicates the parcel has not previously flooded.


2022 Aerial
0 65 130 260 390 520
Feet
N
Produced By: McHenry-Lake County Soil & Water Conservation District
Key To Features
Parcel Boundary
2 Ft Contours



Federal Emergency Management Agency: Flood Insurance Rate Map Panel 17111C0310J

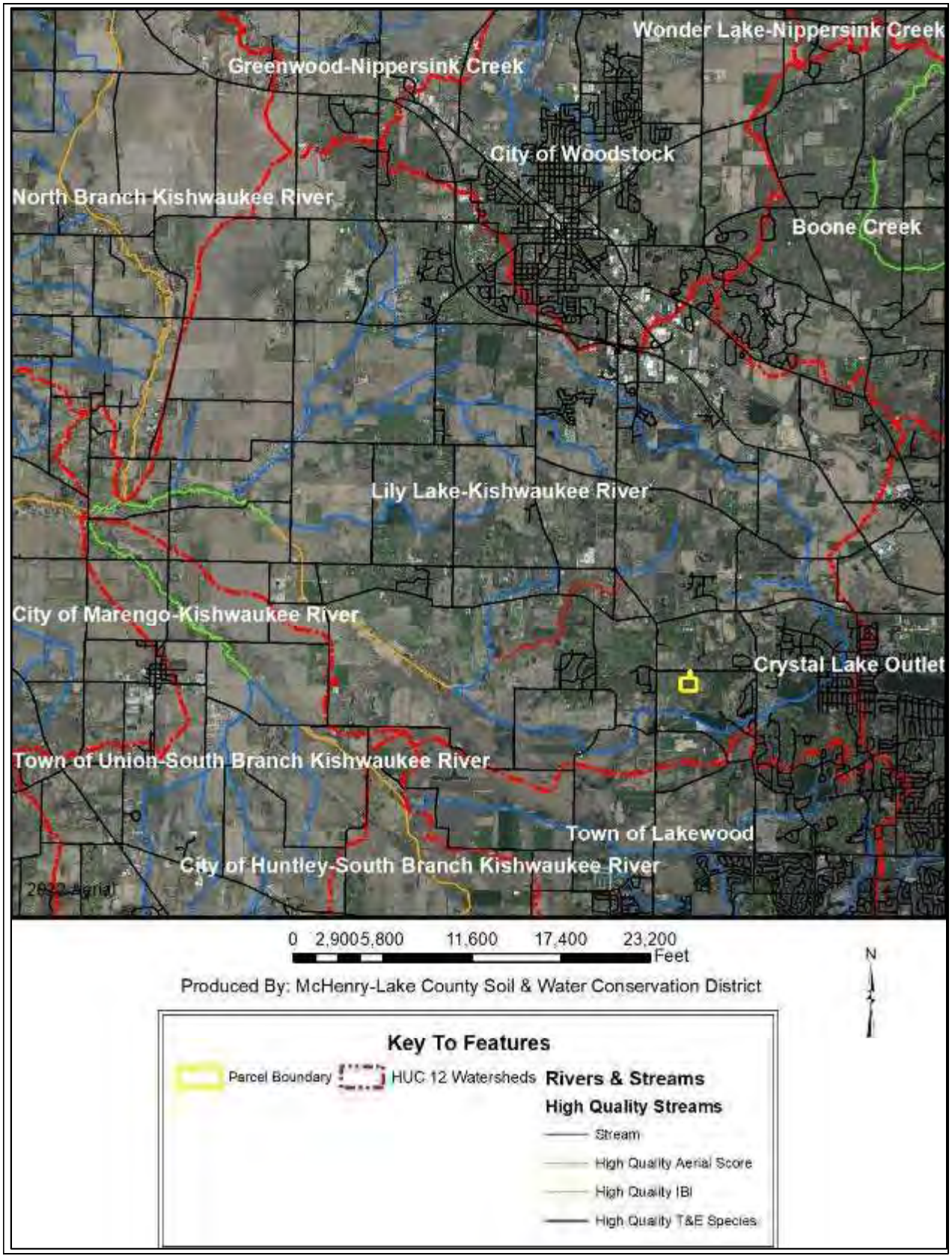
The map indicates the parcel is outside of the 100-year floodplain.

WATERSHED PLANS

Watershed and Subwatershed 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 any pollutants it comes in contact with 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 implications of their activities, implementing practices recommended in watershed plans and educating others about their watershed.

The parcel is within the Lily Lake Subwatershed (HUC 12 – 070900060205) of the Kishwaukee River Watershed, which encompasses 124,802.04 acres of McHenry County. This watershed has an active planning group, which can help the petitioner to limit negative impacts to the watershed from activities performed on this parcel. The petitioner is encouraged to contact the Nathan Hill, Watershed Coordinator, Kishwaukee River Ecosystem Partnership at (815) 621-9358 or krep@inwave.com.


Wonder Lake-Nippersink Creek
Greenwood-Nippersink Creek
City of Woodstock
North Branch Kishwaukee River
Boone Creek
Lily Lake-Kishwaukee River
City of Marengo-Kishwaukee River
Crystal Lake Outlet
Town of Union-South Branch Kishwaukee River
Town of Lakewood
City of Huntley-South Branch Kishwaukee River
2022 Aerial
0 2,900 5,800 11,600 17,400 23,200
Feet
N
Produced By: McHenry-Lake County Soil & Water Conservation District
Key To Features
Parcel Boundary
HUC 12 Watersheds
Rivers & Streams
High Quality Streams
Stream
High Quality Aerial Score
High Quality IBI
High Quality T&E Species

WETLAND INFORMATION

Importance of Wetland Information

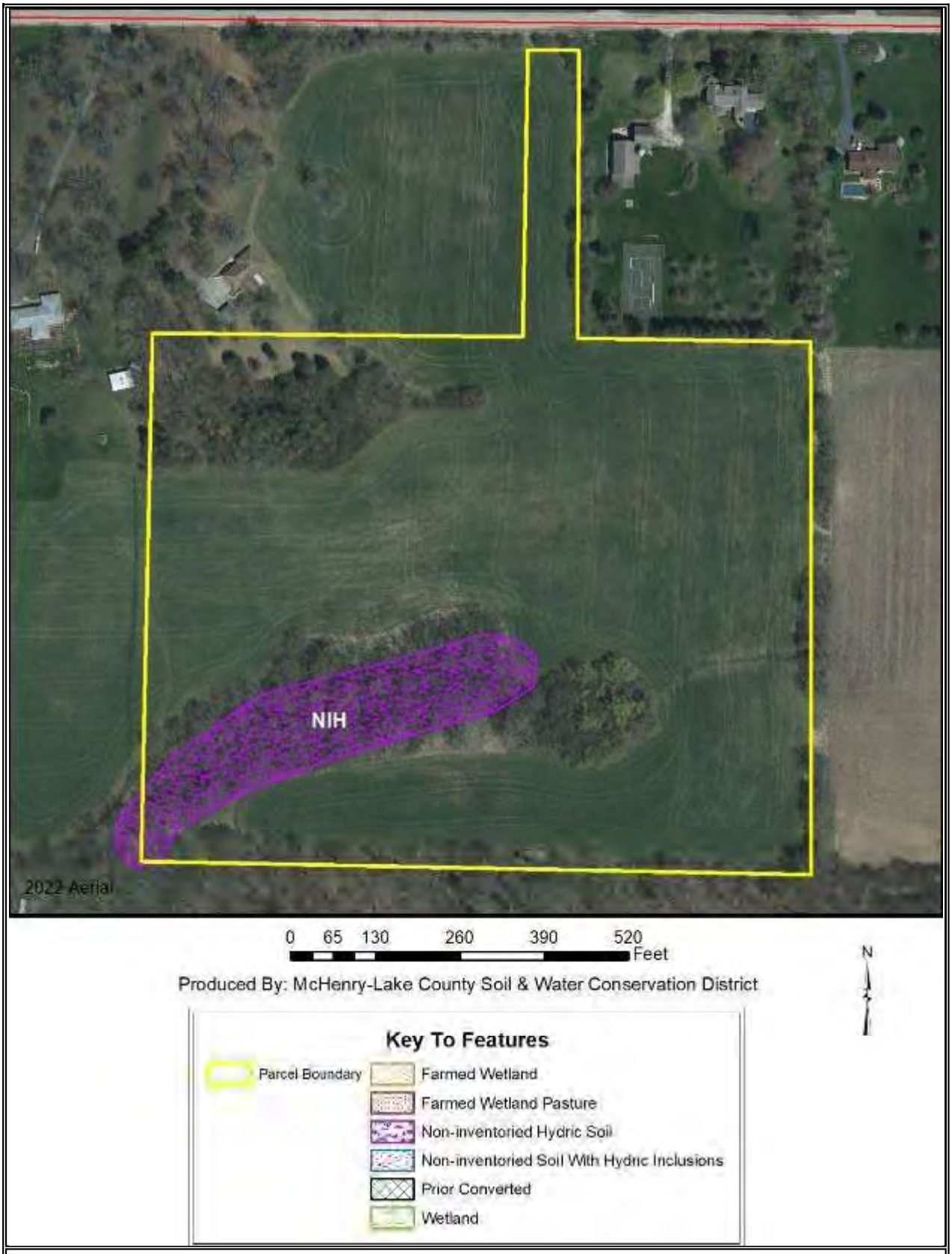
Wetlands function in many ways to provide numerous benefits to society. They control flooding by offering a slow release of excess water downstream or through the soil. They cleanse water by filtering out sediment and some pollutants, and can function as rechargers of our valuable groundwater. They also 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 NRCS (Natural Resources Conservation Service) Wetlands Inventory, which is the most comprehensive inventory to date. The NRCS 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 NRCS 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."*



Natural Resources Conservation Service: Wetland Inventory Map.

The map identifies 1.70 acres of NIH: Non-inventoried Hydric Soils on the parcel.

ADID (ADVANCED IDENTIFICATION OF AQUATIC RESOURCES)

Wetlands are some of the most productive and diverse ecological systems on Earth. The unique characteristics of plants, soils, and water distinguish these systems. Marshes, wet meadows, fens and bogs are some of the common wetland types found within McHenry County. There are also various streams scattered throughout the county, including several that rank among the highest quality in Illinois.

These wetlands, lakes and streams provide needed habitat and food for fish and wildlife. Diverse plants both common and rare are can be found in wetlands, and over 40 percent of Illinois' threatened and endangered plant and animal species rely on wetlands.

Wetlands have many other roles. They are critical to the control of flooding by storing vast quantities of runoff water during floods, and releasing it slowly to rivers and srteams as the floodwater recedes. This in turn helps to prevent erosion in downstream channels, aids in groundwater recharge, and stabilizes the baseflow in streams and rivers. Wetlands are also crucial in protecting water quality. Wetlands that border lakes and streams prevent erosion by holding soil in place and deflecting erosive flows and waves. They also remove sediment, nutrients, and toxic chemicals from runoff water.

Other benefits include groundwater recharge, discharge of clean water, recreation, enhancement of natural aesthetics and serve as buffers between adjacent developments.

This program designed by the EPA (Environmental Protection Agency), is intended to improve awareness of the functions and values of wetlands and other U.S. waters. It is also intended to inform landowners and developers that high quality sites may not be unsuitable for the disposal of dredged or fill material. These ADID projects can also provide guidance on the long-term protection and management of aquatic resources.

The wetland boundaries shown are not jurisdictional delineations. Any proposed drainage work in wet areas requires a certified wetland determination.

The ADID study identifies 1.70 acres of wetland (w) K1135 on the parcel. (Map shown on next page.)



0 65 130 260 390 520 Feet

N

Produced By: McHenry-Lake County Soil & Water Conservation District

Key To Features

- Parcel Boundary
- farmed wetland
- high functional wetland
- high quality lake
- high quality wetland
- lake
- wetland

Hydric Soils

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field.

These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States. Federal Register. September 18, 2002. Hydric soils of the United States.

Soils information gives another indication of flooding potential. The soils map on this 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 also 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 of the areas that drained through the tile (ranging from less than one acre to many square miles.)

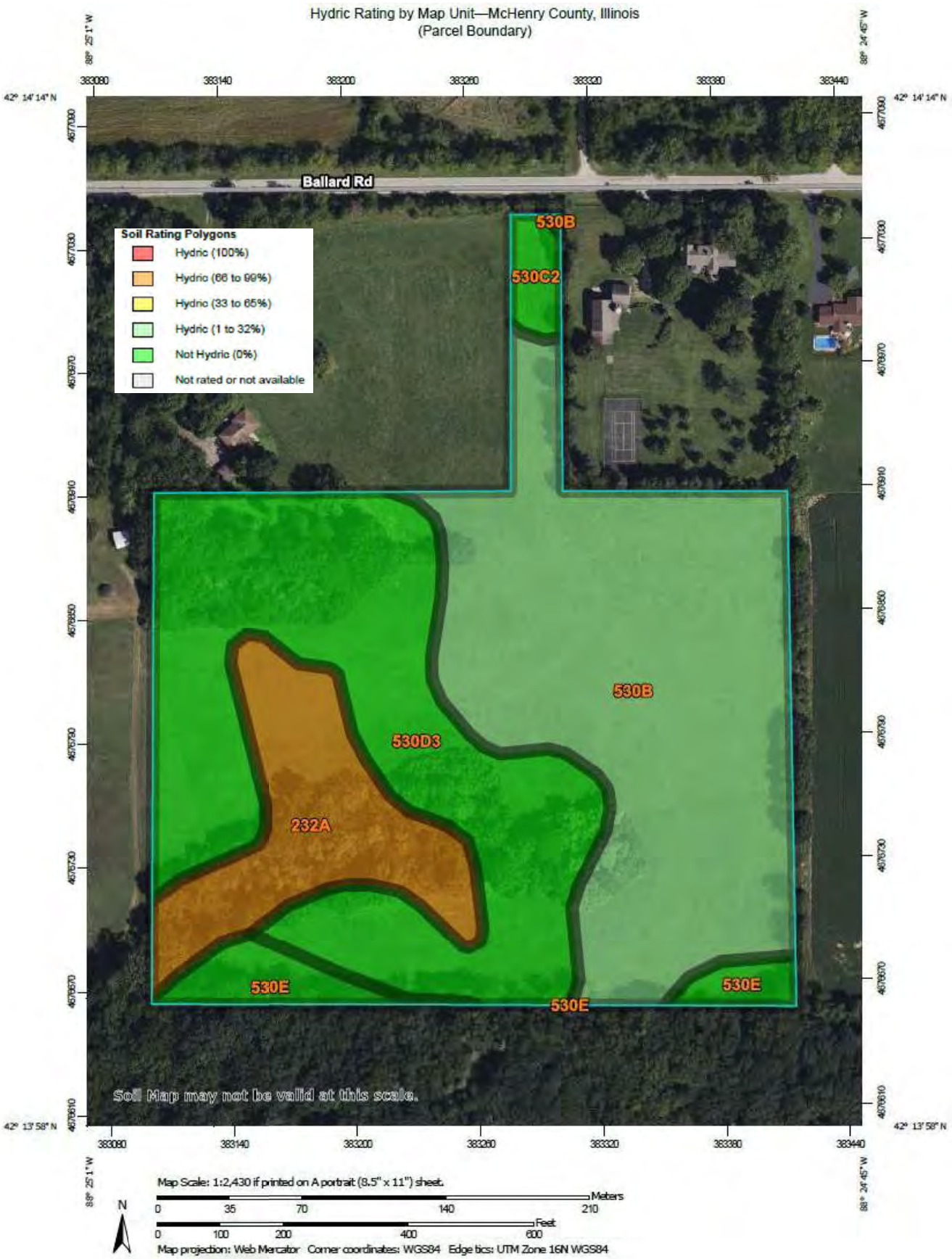
For an intense land use, such as a subdivision, the McHenry County SWCD recommends the following:

1. A topographical survey with 1 foot contour intervals to accurately define the flood area on the parcel.
2. An intensive soil survey to define most accurately the locations of the hydric soils and inclusions
3. A drainage tile survey on the area to locate the tiles that must be preserved.

In general, the District does not recommend building on hydric soils because of the unfavorable properties they exhibit and because of their long term, negative effects on the structures built.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes	97 - Hydric	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes	4	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	0	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	0	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes	0	0.9	4.5%
Total Hydric Soils			**2.7**	**13.6%**


Hydric Rating by Map Unit—McHenry County, Illinois
(Parcel Boundary)
88° 25' 1" W
88° 24' 45" W
42° 14' 14" N
42° 13' 58" N
383080
383140
383200
383260
383320
383380
383440
4677050
4677030
4676970
4676910
4676850
4676790
4676730
4676670
4676610
Ballard Rd
Soil Rating Polygons
Hydric (100%)
Hydric (66 to 99%)
Hydric (33 to 65%)
Hydric (1 to 32%)
Not Hydric (0%)
Not rated or not available
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0
35
70
140
210
Feet
0
100
200
400
600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

FLOODING FREQUENCY

Flooding is 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.

Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent.

"None" means that flooding is not probable. The chance of flooding is nearly 0 percent in any year. Flooding occurs less than once in 500 years.

"Very rare" means that flooding is very unlikely but possible under extremely unusual weather conditions. The chance of flooding is less than 1 percent in any year.

"Rare" means that flooding is unlikely but possible under unusual weather conditions. The chance of flooding is 1 to 5 percent in any year.

"Occasional" means that flooding occurs infrequently under normal weather conditions. The chance of flooding is 5 to 50 percent in any year.

"Frequent" means that flooding is likely to occur often under normal weather conditions. The chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year.

"Very frequent" means that flooding is likely to occur very often under normal weather conditions. The chance of flooding is more than 50 percent in all months of any year.

Flooding Frequency Class

Map unit symbol	Map unit name	Rating	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes	None	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes	None	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	None	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	None	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes	None	0.9	4.5%
Total Flooding			**0.0**	**0.0%**


Flooding Frequency Class—McHenry County, Illinois
(Parcel Boundary)
Ballard Rd
Soil Rating Polygons
None
Very Rare
Rare
Occasional
Common
Frequent
Very Frequent
Not rated or not available
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
Meters
0 35 70 140 210
Feet
0 100 200 400 600
N
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

PONDING FREQUENCY

Ponding is standing water in a closed depression. The water is removed only by deep percolation, transpiration, or evaporation or by a combination of these processes. Ponding frequency classes are based on the number of times that ponding occurs over a given period. Frequency is expressed as none, rare, occasional, and frequent.

"None" means that ponding is not probable. The chance of ponding is nearly 0 percent in any year.

"Rare" means that ponding is unlikely but possible under unusual weather conditions. The chance of ponding is nearly 0 percent to 5 percent in any year.

"Occasional" means that ponding occurs, on the average, once or less in 2 years. The chance of ponding is 5 to 50 percent in any year.

"Frequent" means that ponding occurs, on the average, more than once in 2 years. The chance of ponding is more than 50 percent in any year.

Ponding Frequency Class

Map unit symbol	Map unit name	Rating	Acres	Percent
232A	Ashkum silty clay loam, 0 to 2 percent slopes	Frequent	2.7	13.6%
530B	Ozaukee silt loam, 2 to 4 percent slopes	None	8.6	42.9%
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	None	0.3	1.7%
530D3	Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	None	7.5	37.2%
530E	Ozaukee silt loam, 12 to 20 percent slopes	None	0.9	4.5%
Total Frequent Ponding			**2.7**	**13.6%**


Ponding Frequency Class—McHenry County, Illinois
(Parcel Boundary)
88° 25' 1" W
88° 24' 45" W
42° 14' 14" N
42° 13' 58" N
383080
383140
383200
383260
383320
383380
383440
4577030
4577090
4576970
4576910
4576850
4576790
4576730
4576670
4576610
Ballard Rd
Soil Rating Polygons
None
Rare
Occasional
Frequent
Not rated or not available
530B
530C2
530B
530D3
232A
530E
530E
530E
Soil Map may not be valid at this scale.
Map Scale: 1:2,430 if printed on A portrait (8.5" x 11") sheet.
Meters
0
35
70
140
210
Feet
0
100
200
400
600
N
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

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 flood way 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, flood plain or flood way subject to County, State or Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES:

- **Wetlands or U.S. Waters: U.S. Army Corps of Engineers**, Chicago District,
  231 S. LaSalle St., Suite 1500
  Chicago, IL 60604
  Phone: (312) 846-5330
- **Isolated Wetlands and Floodplain: McHenry County Department of Planning & Development Stormwater Division,**
  2200 N. Seminary Ave., Woodstock, IL 60098
  Phone: (815) 334-4560
- **Flood plains: Illinois Department of Natural Resources \ Office of Water Resources**, 201 W. Center Court, Schaumburg, IL 60196-1096, phone (847).705.
- **Water Quality \ Erosion Control: Illinois Environmental Protection Agency**, Division of Water Pollution Control, Permit Section, Watershed Unit, 2200 Churchill Road, Springfield, IL 62706, phone (217).782.0610.

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 water 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 Harbor Act of 1899 or Section 404 of the Federal Water Pollution Control Act are subject to fines ranging up to $27,500 per day of violation and imprisonment for up to one year or both.

THREATENED & ENDANGERED SPECIES

The State of Illinois provides habitat for 500 threatened and endangered species, including 356 plants and 144 animals. Twelve counties in Illinois have 50 or more endangered species, 5 of which are in northeastern Illinois. ("Endangered Species of Illinois," by the U.S. Fish & Wildlife Service, IDOC Division of Natural Heritage & Endangered Species Protection Board).

Approximately 40% of the state's listed species depend on wetlands for survival. The two main causes for species decline are the loss of habitat and the degradation of habitat. While habitat loss is the primary reason species become endangered, the effects of habitat change are not always seen overnight. It is seldom simply a case of individual animals or plants being killed. More often, habitat loss and the resulting species declines are indirectly caused and are the result of cumulative impacts over a period of time.

It is because of this slow encroachment of habitat degradation, fragmentation and loss that wildlife habitat must be looked at on a greater scale than just the site. Cumulative impacts occur because a small amount of damage is being done over here and little over there and no one is looking at the whole picture. Thus, the villages and county are strongly encouraged to look at habitat management on a regional scale.

THERE IS A POSSIBILITY FOR ENDANGERED SPECIES ON THE SITE. IF A REQUEST HAS NOT ALREADY BEEN SUBMITTED, THE PETITIONER SHOULD ASK THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES TO CHECK THIS PARCEL FOR THE PRESENCE OF THREATENED OR ENDANGERED SPECIES. SHOULD ANY SUCH SPECIES BE IDENTIFIED AS UTILIZING THIS PARCEL, THE PETITIONER WILL BE NOTIFIED ACCORDINGLY. FOR MORE INFORMATION ON HOW TO REQUEST AN ENDANGERED SPECIES CHECK ON THIS PARCEL, PLEASE VISIT
www.dnrecocat.state.il.us/ecopublic.

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 can not 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.

B.G. - Below Grade. Under the surface of the Earth.

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 LEVEL MANAGEMENT - The application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reaction and near optimum levels of available nitrogen, phosphorus, and potassium for individual crops are maintained. Efficient use is made of available crop residues, barnyard manure, and/or green manure crops. All operations, when combined efficiently and timely, can create favorable growing conditions and reduce harvesting losses -- within limits imposed by weather.

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 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.

PALUSTRINE - Name given to inland fresh water wetlands

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. (Source USDA Natural Resources Conservation Service)

PRODUCTIVITY INDEXES - Productivity indexes for grain crops express the estimated yields of the major grain crops grown in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state. This group of soils is composed of the Muscatine, Ipava, Sable, Lisbon, Drummer, Flanagan, Littleton, Elburn and Joy soils. Each of the 425 soils found in Illinois are found in Circular 1156 from the Illinois Cooperative Extension 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.

TERRAIN - The area or surface over which a particular rock or group of rocks is prevalent.

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 to support, and under normal circumstances does support, a prevalence of

hydrophytic vegetation typically adapted for life in saturated soil conditions.

REFERENCES

A Citizens' Guide to Protecting Wetlands. By The National Wildlife Federation. Washington, D.C., March 1989

Agricultural Areas Inventory
McHenry County Soil & Water Conservation District

FIRM - Flood Insurance Rate Maps for McHenry County. Prepared by FEMA - Federal Emergency Management Agency.

Flood of Record (Hydrologic Atlas) for McHenry County
U.S. Geologic Survey

Geologic Mapping for Environmental Planning, McHenry County, Illinois. Department of Natural Resources Illinois State Geological Survey, Circular 559, 1997

Geology For Planning in Boone and Winnebago Counties. State Geological Survey Division, Circular 531. 1984

Hydrologic Unit Map for McHenry County.
Natural Resources Conservation Service, United States Department of Agriculture

Hydric Soils of the United States. USDA Natural Resources Conservation Service, 1987.

Illinois Natural Areas Inventory
Illinois Department of Natural Resources

Land Evaluation and Site Assessment System. 2005. The McHenry County Department of Planning and McHenry County Soil and Water Conservation District. In cooperation with: USDS, Natural Resources Conservation Service

McHenry County Advanced Identification of Wetlands (ADID)
Northeastern Illinois Planning Commission

McHenry County Health Code relating to septic system suitability

McHenry County 2030 Land Use Plan
McHenry County Dept. of Planning and Development

McHenry County Natural Areas Inventory
McHenry County Conservation District

McHenry County, Illinois Fire Protection Districts
McHenry County Dept. of Planning and Development

McHenry County, Illinois Historic Landmarks
McHenry County Historic Preservation Committee

Natural Resources Conservation Service Wetland Inventory Map. United States Department of Agriculture

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

Wetlands - The Corps of Engineers' Administration of the Section 404 Program July 1988 (GAO/RCED-88-110)

Soil Erosion by Water - United States Department of Agriculture Natural Resources Conservation Service. Agriculture Information Bulletin 513.

Soil Survey of McHenry County, Illinois Part 1 and Part 2
Natural Resources Conservation Service, United States Department of Agriculture.

Agenda Item No: 10

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: Board and Commission Appointments - Youth Commission

Mayor's Recommendation: Move to approve the nomination of Ella Hutchins, Jotham Becker, and Sabrina Noon as at-large members of the Youth Commission, and reappointments of Charlie Benton, Andrew Cioper, Alyssa (Theo) Johnston, and Jackson Lisle as at-large members of the Youth Commission, for one-year terms ending May 31, 2026.

Contact: Haig Haleblian, Mayor

Background:
As the City Council is aware, the Youth Commission was adopted at the May 7, 2024 City Council meeting. The Commission consists of seven (7) at-large voting members, aged 16 to 20 years old, who are residents of the City of Crystal Lake or attend a school in Crystal Lake. The members are subject to the approval by a majority vote of the Mayor and City Council of the City of Crystal Lake.

There are three vacant positions on the Commission at this time. The following Crystal Lake students have expressed an interest in serving on the Youth Commission. If appointed to the Commission, each member would serve a one-year term expiring on May 31, 2026.

- Ella Hutchins
- Jotham Becker
- Sabrina Noon

The following Crystal Lake students have expressed an interest in serving a second term on the Youth Commission. If reappointed to the Commission, each member would serve a one-year term expiring on May 31, 2026.

- Charlie Benton
- Andrew Cioper
- Alyssa (Theo) Johnston
- Jackson Lisle

The following meeting schedule is proposed for the Youth Commission term. The first meeting is scheduled for Thursday, September 11, 2025.

	Date (Second Thursday of the Month)
Meeting 1	September 11, 2025
Meeting 2	October 9, 2025
Meeting 3	November 13, 2025
Meeting 4	December 11, 2025 (tentative)
Meeting 5	January 8, 2026
Meeting 6	February 12, 2026
Meeting 7	March 12, 2026
Meeting 8	April 9, 2026
Meeting 9	May 14, 2026

Votes Required to Pass:

Simple majority

Agenda Item No: 11

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: Board and Commission Reappointments - Historic Preservation Commission

Staff Recommendation: City Council Discretion

Contact: Mayor Haig Haleblian

Background:

The terms of Historic Preservation Commission members Robert Wyman, Nancy Haskins and Ana Freund expired on June 30, 2025. All three members have asked to be reappointed to the Commission, and the Commission also recommended the reappointments. If reappointed, their three-year terms would expire June 30, 2028.

Appointments to the Historic Preservation Commission are made and confirmed by the Mayor and City Council.

Votes Required to Pass:

Simple majority.

Agenda Item No: 12

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: COUNTY ZONING REQUEST

Commercial solar energy facility on 39 acres south of McHenry County College on the southwest side of US-14, Unincorporated Crystal Lake, Illinois

Recommendation: Motion to direct staff to send a letter requesting compliance with the City's Special Use Permit criteria for solar farms.

Staff Contact: Kathryn Cowlin, Director of Community Development
Darrell Moore, Assistant City Planner

Due to the proximity to the City's boundary, staff recommends sending a letter to McHenry County requesting that the following City of Crystal Lake Special Use Permit criteria be met:

- The entire project site shall be surrounded with landscape and a fabric-wrapped chain link fence, which would screen the property from any roadways or public driveways.
- The grounds in and around the panels shall be repurposed for wildflowers or agriculture. A landscape plan is required.
- One ten-foot-wide paved drive shall provide access around the entire site.

City staff has been in contact with the applicant, who has expressed their intent to comply with the City's criteria. The staff-recommended letter is meant to reinforce the City's position, and would be presented by County staff to the Zoning Board of Appeals at the August 27th hearing on the matter.

Background:

- The City received this County Zoning requests because it is within the City's mile-and-a-half planning jurisdiction. The City abuts the property on its southwest side and also touches the northeast corner.
- The subject property is approximately 39.3 acres. It is zoned "A-1" Agriculture District and used for agriculture.
- A Crystal Lake sanitary sewer line and ten-foot easement runs through the property.

- The subject property abuts McHenry County "A-1" Agriculture District zoning to the north and southeast. County "B-1" Neighborhood Business District zoning abuts the property to the northeast. To the southwest is Crystal Lake Park District property known as Sunset Meadow Park, which is within City boundaries and zoned "W" Watershed District. Most property surrounding the PIQ is used for agriculture, though the property to the east contains a residence and the property across the highway contains an office building.
- The County's 2030 Land Use Plan labels the subject property Mixed-Use. The Crystal Lake 2030 Comprehensive Land Use Plan map labels the property Office.
- The County Staff Report was not yet available at the time of this agenda supplement.

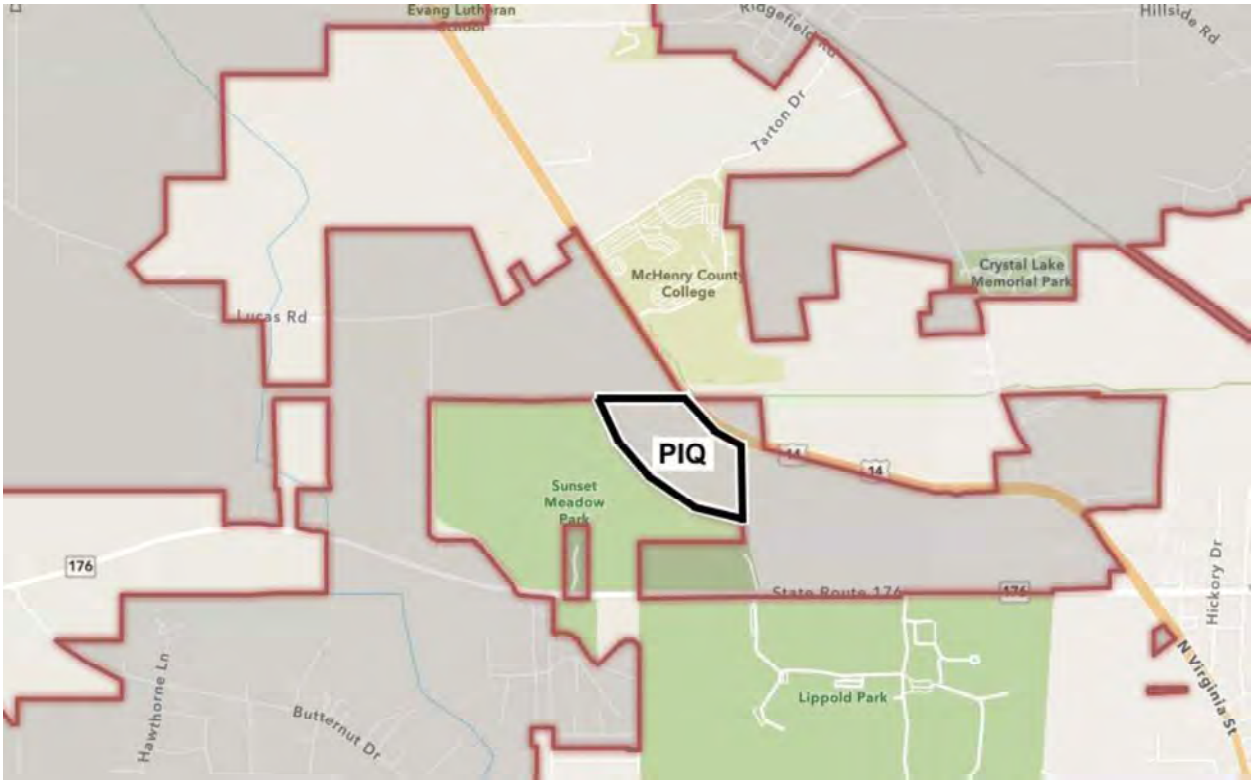
Request:

- The petitioners are requesting a 33-acre Solar Farm, having a 5 megawatt production capacity. The County requires a Conditional Use Permit for Solar Farms in the "A-1" Agriculture, "O" Office/Research, "I-1" Light Industrial and "I-2" Heavy Industrial zoning districts. The City of Crystal Lake requires a Special Use Permit in the F Farming, M-L Limited and M Manufacturing zoning districts.
- Per staff's request, a revised site plan restricts any improvements within five feet of the Crystal Lake sanitary sewer easement running through the property.
- Height: Design details were not included in the project submittal, but it does include a statement that the all structures (excluding power lines for interconnection) will comply with the County's maximum height of 20 feet.
- Setbacks: According to the site plan, the solar array will be about 65 feet from the US-14 right-of-way, at its closest point. The solar panels, structures and electrical equipment will be setback no less than 50 feet from any lot line and 150 feet from the nearest point on the outside wall of any non-participating residences, which meets the County's setback requirements.
- Safety/Security: There will be a 7-foot-high fence with locked gates. Access codes to the gate will be provide to emergency service providers.
- Landscaping: No landscaping plan was submitted at the time of this agenda supplement, although notes on the site plan label a "vegetative buffer" and "pollinator friendly plantings" along US-14. The applicant has stated their intention to meet County and State requirements for pollinator-friendly plantings.
- Per the County's UDO's Use Standards for Commercial Solar Energy Facilities, decommissioning plans shall require removal of all solar panels, electrical equipment, poles, piles, foundations, and conduits (above and below ground). Access roads, fencing, groundcover, and landscaping may remain only by agreement of property owner.
- The City of Crystal Lake requires a Special Use Permit for solar farms in the F – Farming, M-L Manufacturing Limited and M – Manufacturing zoning districts.
- The property is within the Crystal Lake Watershed.

Votes Required to Pass: A simple majority.

Parcel in Question

US-14 South of McHenry County College



McHenry County
Zoning Board of Appeals - Zoning Hearing
AGENDA

August 27, 2025, 1:30 PM
County Board Conference Room
Administration Building, 667 Ware Rd., Woodstock, IL 60098

Pages

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **NEW BUSINESS / PUBLIC HEARING**
   - 3.1 Z25-0064 Skystone Solar LLC, A1-A1C, Grafton Twp — 2
   - 3.2 Z25-0065 Pebble Solar LLC, A1 & A2 - A1C & A2C, Nunda Twp — 262
   - 3.3 Z25-0066, Kona Solar LLC, A1-A1C, Dorr Twp — 376
4. **OLD BUSINESS**
5. **PUBLIC COMMENT**
   Topics unrelated to public hearing - 3-minute time limit per speaker
6. **ANNOUNCEMENTS**
7. **ADJOURNMENT**

LEGAL NOTICE OF PUBLIC HEARING **Z25-0066**
IN THE MATTER OF THE APPLICATION OF
KONA SOLAR PROJECT LLC, APPLICANT
FOR AN AMENDMENT OF THE UNIFIED DEVELOPMENT
ORDINANCE OF McHENRY COUNTY, ILLINOIS FOR A
CONDITIONAL USE

Notice is hereby given in compliance with the McHenry County Unified Development Ordinance, that a public hearing will be held before the McHenry County Zoning Board of Appeals, in connection with this Ordinance, which would result in a CONDITIONAL USE for the following described real estate:

Part of the Northwest Quarter of Section 36, Township 44 North, Range 7 East of the Third Principal Meridian, being described as follows:
Commencing at the Northwest corner of said Northwest Quarter; thence South 00 degrees 10 minutes 18 seconds East, 190.00 feet to the South line of the North 190.00 feet of said Northwest Quarter; thence North 89 degrees 41 minutes 10 seconds East along said South line, 784.65 feet to the Northeasterly corner of lands described in Document No. 1999R0050579 and the Place of Beginning; thence South 25 degrees 36 minutes 33 seconds East along the Northeasterly line thereof, 616.42 feet; thence South 41 degrees 47 minutes 39 seconds East along said Northeasterly line, 665.65 feet; thence South 58 degrees 31 minutes 53 seconds East along said Northeasterly line, 665.56 feet; thence South 74 degrees 38 minutes 57 seconds East along said Northeasterly line, 596.00 feet to the East line of said Northwest Quarter of Section 36; thence North 00 degrees 18 minutes 16 seconds West along the said East line, 1,007.07 feet to the South right—of—way line of U.S. Route 14 per Final Judgement in Circuit Clerk Court Case #12ED70, dated September 9, 2014; thence Northwesterly 48.43 feet along said Southwesterly right of way line, being along a curve to the right, having a radius of 2,023.50 feet, the chord of which bears North 66 degrees 55 minutes 03 seconds West, for a length of 48.42 feet; thence Northwesterly 684.44 feet along said Southwesterly right of way line, being along a curve to the right, having a radius of 1,303.60 feet, the chord of which bears North 57 degrees 53 minutes 54 seconds West, for a length of 676.61 feet; thence Northwesterly along said Southwesterly right of way line 245.37 feet along a curve to the right, having a radius of 2,038.50 feet, the chord of which bears North 43 degrees 36 minutes 41 seconds West, for a length of 245.22 feet to the South line of the North 190.00 feet of the said Northwest Quarter; thence South 89 degrees 41 minutes 10 seconds West along said South line, 1,060.28 feet to the Place of Beginning in McHenry County Illinois.

PIN 13-36-100-010 and 13-36-100-015

The subject property is located on the south side of U.S. Highway 14 approximately two thousand two hundred seventy-five (2,275) feet Southeast of the intersection of U.S. Highway 14 and Lucas Road, with a common address of 8717 U.S. Highway 14, Crystal Lake, Illinois, in Dorr Township.

The subject property is presently zoned “A-1” Agriculture District and consists of approximately 39.333 acres with “A-1” Agriculture District to the North, “B-1V” General Business with Variation, “B-1” General Business, “A-1” Agriculture District and “A-1V” Agriculture District with Variation to the East, and the City of Crystal Lake to the South and to the West.

The Applicant is requesting a CONDITIONAL USE of the subject property to allow for a commercial solar energy facility.

The Applicant, Kona Solar Project, LLC is wholly owned by Cultivate Power, LLC. Brian Matthay and Noah Hyte the officers of Cultivate Power, LLC and Kona Solar Project, LLC, can be reached at 30 W. Hubbard St, Ste 400, Chicago, Illinois. Nick Pappas and Joann Pappas, property owners, can be reached at PO Box 1682, Palatine, Illinois.

A hearing on this Petition will be held on **the 27th day of August 2025 at 1:30 P.M.** in the County Board conference room at the McHenry County Government Center Administration Building 667 Ware Rd, Woodstock, Illinois at which time and place any person desiring to be heard may be present. The McHenry County Government Center Mailing address is 2200 N. Seminary Avenue, Woodstock, Illinois 60098.

DATED THIS 5TH DAY OF AUGUST 2025.

By: Linnea Kooistra, Chair, McHenry County Zoning Board of Appeals,
2200 N. Seminary Avenue, Woodstock, IL 60098

Petitions for all Zoning Board of Appeals hearings can be accessed at the following link:
www.mchenrycountyil.gov/county-government/new-meeting-portal and choosing the “Agenda” link for the specific meeting date.
Live audio streams of all Zoning Board of Appeals hearings can be accessed at the following link:
www.mchenrycountyil.gov/county-government/new-meeting-portal and choosing the “Video” link for the specific meeting date.

KONA SOLAR PROJECT, LLC

5 MW COMMUNITY SOLAR FACILITY

Prepared by: Kona Solar Project, LLC
McHenry County Conditional Use Permit Application
Initial Application: June 30, 2025
Revised Application: July 22, 2025

Introduction

Kona Solar Project, LLC is a limited liability company owned by Cultivate Power, LLC. Kona Solar Project, LLC, the Applicant, has prepared this application for a 5 megawatt (MW) solar energy and battery storage facility in McHenry County, Illinois. This 5 MW solar energy and battery facility may be referred to herein as "Kona Solar" or "the project."

We submit this request on behalf of the property owners, Nick and Joanne Pappas. Cultivate Power, LLC, or another qualified solar farm owner and operator, will provide financial backing and technical expertise to ensure the success of Kona Solar. Cultivate Power is a dedicated distributed generation solar developer focused on Illinois. Our team has a combined 100 years of experience developing and financing solar projects and we are excited to bring solar to McHenry County.

We are excited by the opportunity to provide McHenry County with a long-term source of clean, sustainable energy. Beyond that, the project will generate income for our landowner, create an opportunity for ComEd customers to subscribe to power at or below market rates, and increase the local tax base.

This application was prepared according to the requirements detailed in Title 16: Unified Development Ordinance, Chapter 16.56.030, Subsection PP and Chapter 16.20.40, Subsection E, Approval Standards for Conditional Use Permits of McHenry County Illinois, Code of Ordinances. Kona Solar respectfully submits information, exhibits, and materials which are hereby incorporated into and made part of the Application below in order to comply with the McHenry County Conditional Use Permit Standards for Issuance.

We thank you for your consideration and look forward to working together to bring the benefits of a solar and battery energy facility to the area. Please let me know if I can provide additional information or assistance.

Sincerely,
Dylan Haber
312-447-1890
haber@cultivate-power.com
Cultivate Power

Project Overview

Project Name: Kona Solar Project, LLC
Project Address: 8717 US Hwy 14, Crystal Lake, IL 60012
PIN: 13-36-100-015 & 13-36-100-010
Nearest Cross Streets: US Highway 14 and Circle Dr
Size: 5 MWac
Acreage: 40.4 acre parcel area, 28.9 acre project area
Landowner: Nick and Joanne Pappas

Kona Solar Project, LLC will contain rows of Photovoltaic (PV) cell modules mounted on posts set in the ground. The project currently anticipates that a battery storage system will also be incorporated into Kona Solar. The project will be a self-contained, low-impact development requiring little to no local municipal services.

Kona Solar will bring significant economic and energy benefits to McHenry County and will not negatively impact public health, safety or general welfare, nor will it affect the comfort and convenience of the public or of the immediate neighborhood.

Kona Solar was determined as an ideal location for solar farm development for a variety of factors including:

- → Proximity to relevant electrical and road infrastructure
- → Likelihood of wetlands and other protected landforms or species
- → Slope of land and direction of this slope
- → Interest from our landowner
- → Current zoning district and surrounding uses

The project will have minimal impact on surrounding properties, which are predominantly zoned Agricultural.

The anticipated power output of the project is approximately 8 million kilo-watt hours (kWh) annually, enough to power approximately 1,100 single-family homes.[1] Kona Solar expects to invest an estimated $7,000,000 into the project; create 24 local jobs during construction[2]; and significantly increased property tax revenue over the lifetime of the project. Cultivate Power is a proud partner of each community that we work with, and we look forward to a continued relationship with McHenry County.

[1] https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator
[2] https://www.seia.org/research-resources/national-solar-jobs-census-2020

Solar Overview

Solar Technology

Kona Solar will contain rows of Photovoltaic (PV) cell modules mounted on posts set in the ground. These rows of modules are referred to as "solar arrays" mounted on a single axis tracking system, which allows them to follow the sun throughout the day. The modules face east in the morning, are horizontal at midday, and face west in the afternoon, and are no more than fifteen (15) feet high at max tilt. Solar components will comply with the current edition of the National Electric Code, are UL Listed or equivalent, and will have an anti-reflective coating.

The project currently anticipates a battery storage system will also be incorporated into Kona Solar, LLC. The battery will meet all applicable codes including NFPA and UL standards.

The basic components of any solar energy facility include: PV modules, inverters, combiner boxes, transformers, battery, wires and conductor cables, structural racking system for PV modules, an access road, and perimeter fencing. Solar electricity production includes the following components:

1. Electrical Power Generation. Sunlight strikes the PV module cells, which convert photons of light into electrons, producing low-voltage, Direct Current (DC) electricity.

2. Combiner Boxes. The low-voltage, DC electricity is fed through cables from each PV module to a combiner box.

3. Inverters. The low-voltage, DC electricity is fed through cables from the combiner box to an inverter, where it is converted to low-voltage, Alternating Current (AC) electricity.

4. Transformers. The transformer steps up the low-voltage, AC electricity to the appropriate voltage so that it can be fed into the electrical transmission system.

5. Battery Storage. The battery can store electricity generated by the solar system in order to distribute the energy to the local grid when the electricity is in higher demand.

6. Utility Distribution. Electricity is sent through the electrical sub-transmission lines to utility distribution systems for delivery to ratepayers.

Current photovoltaic modules are typically Crystalline Silicone (C-Si) and Thin Film (TF). The solar PV modules function as a solid state, inert crystal, similar to a pane of solid glass. The modules do not corrode and do not produce any emissions. The technology is encapsulated in layers of plastic and glass to prevent air and moisture from entering the cell and conversely prevents the release of materials out of the module and into the environment. The solar panels are expected to work upwards of 40 years before they are recycled to recover the valuable materials contained inside.

Current battery technology is typically lithium-ion batteries. The battery can enhance the electric grid by storing electricity produced by the solar panels and deploying that power to the grid at times of high stress.

Glare

Photovoltaic solar energy systems are designed to reduce reflection and have low potential to produce hazardous glare. Modules are covered with anti-reflective coating and demonstrate less glare than windows and water.

Sound

The solar energy system produces minimal sound during the day and no sound overnight. The main source of noise is from the inverter, but this noise cannot be heard beyond the project boundary. The inverter rated at 67 decibels, about the volume of a washing machine, at 10 meters.

Environmental Impact

Kona Solar will contract environmental consultants to perform field investigations, literature reviews, and agency consultations to identify and assess existing environmental conditions at the project site. Information derived from the environmental diligence is used by Cultivate to avoid and minimize effects to environmental resources during the design process. Full compliance with federal, state, and local regulations will ensure Kona Solar will not result in adverse impacts to environmental resources. Kona Solar has consulted with the Illinois Department of Natural Resources regarding protected species.

Kona Solar will comply with the McHenry County Stormwater Management Ordinance and NPDES permit requirements.

Safety

Kona Solar will be a safe facility that will not impact the well-being of local residents or McHenry County. Solar energy facilities are very safe, with simple and proven technologies.

The project will be constructed according to all required building and electrical codes and safety measures. Site plans will be approved by all applicable local authorities, and regularly visited throughout construction as required by the McHenry County or by the State of Illinois' building codes. Energized system components, such as inverters, will be commissioned by the manufacturers' technicians. The project will employ required lock-out measures and safety warnings. A 7' tall security perimeter fence per National Electrical Code regulations will prevent trespassing and vandalism. Access codes to the gate will be provided to the Police Department, Fire Department, and emergency service providers. Vehicular access to the site is adequate for the use proposed and for emergency services.

The regular vegetation control methods prevent buildup of debris that could otherwise pose risk of fire material, thus Kona Solar will pose no increased risk of fires to the surrounding areas.

Kona Solar will continue to coordinate with all necessary Federal, State, and County agencies and other entities throughout the planning process.

Construction Overview

Timeline

The construction of Kona Solar is expected to take approximately 20-26 weeks using standard solar construction procedures. The utility's engineering, procurement, and construction of the interconnection facilities will take 6-18 months total and will be complete just before the construction of the solar farm itself. Finally, the solar farm energy facility will go through 2-3 months of commissioning before reaching commercial operation.

Finances and Labor

Kona Solar expects to invest an estimated $7,000,00 into the project. These costs are based on build cost assumptions and include all construction, material, labor, and professional service-related expenditures. Cultivate Power, in combination with tax equity and debt partners, will provide the financial backing for the project.

Approximately $4,000,000 of the project cost will benefit the local economy including expenditures on parts and labor, goods and services, fuel and lodging, dining and other consumer resources. Kona Solar will result in the creation of approximately 24 local jobs during construction provided that qualified, local labor is available. Cultivate Power hires and works with qualified, local subcontractors wherever possible. Local contractors are most familiar with local practices and authorities, which streamlines work on our projects.

Soil, Grading, and Vegetation

Most sites require minimal grading and an entire facility can often be installed with minimal soil disturbance. Soil will not be removed from the site except in the case of remediation. Structural frames are driven into the ground with steel beams on which PV modules are mounted. The battery storage system, inverters and transformers are mounted on top of small concrete pads – the only concrete on the project. The project area will be seeded with native plantings.

Drain Tile

Kona Solar is committed to maintaining the integrity of existing drain tile conditions. Field tiles will be surveyed prior to construction and repaired or replaced if impacted.

Traffic

A temporary and limited rise in vehicle traffic during the construction period is anticipated: approximately 2-15 personal cars and 1-10 trucks will visit the site per day.

Operation and Maintenance Overview

Equipment Maintenance

Once constructed, the project will be monitored remotely and will require minimal maintenance, anticipated 5-9 site visits per year. The project will not require on-site manning, nor will it require sewer, water, or other services.

Vegetation Maintenance

Kona Solar is committed to landscaping best practices that stabilize the soil to add strength and durability for the long-term success of the project and the health of the land. Based on the specific site, local plantings will be chosen and maintained to prevent erosion, manage run off, and build soil. Seeding will be from a mix of local plants.

Kona Solar will maintain vegetation for property within the fence line and property immediately surrounding fencing (within reason), specifically ensuring vegetation does not encroach on solar panels. Frequency of vegetation management visits is determined by both regional and seasonal factors. We anticipate mowing will occur at the Kona Solar site at maximum 6 times a year.

Traffic Safety

No significant traffic impacts are anticipated due to Kona Solar. With no more than one to three vehicle visits per quarter on average, the project will not be a significant traffic generator and will not cause undue harms to the surrounding road networks, to local responders, or to the Illinois Department of Transportation.

Decommissioning

Commitments and Code Adherence

Kona Solar Project, LLC guarantees that Kona Solar shall be removed, at the expense of the operator, at the end of the project lifetime or in the unlikely event that the system ceases power production according to the conditions below. The project will comply with McHenry County decommissioning requirements and will sign an Agricultural Impact Mitigation Agreement (AIMA) with the Illinois Department of Agricultural that further commits Kona Solar to proper decommissioning processes.

Decommissioning Conditions

Decommissioning will occur as a result of any of the following conditions:

- The land lease expires or is terminated; or
- The solar energy system the ("SES") does not produce power for a period of 12 consecutive months

Decommissioning Steps

If any of the decommissioning conditions are met, the operator is responsible for decommissioning steps including:

- Remove all Operator-owned equipment, conduits, structures, and foundations to a depth of at least five feet below grade; and
- Remove all fencing, unless the owner of the leased real estate requests in writing for it to stay in place;
- Remove concrete pads, metal structures (mounting racks and trackers), all photovoltaic (PV) modules, pipelines, alternators, generators, aboveground and underground cables, transformers, inverters, battery energy storage system (BESS) batteries, BESS shells, fans, switch boxes, fixtures, etc.; and
- Take the following steps to restore the land:
    - Grade to maintain existing drainage patterns at the time of decommissioning unless stated otherwise by the leading Authority Having Jurisdiction (AHJ) or in any governing decommissioning ordinance;
    - Reseed the land using local non-invasive grasses; and
    - Maintain the grass for a total of three months after the seeding.

Financial Assurance

Kona Solar will provide McHenry County with financial assurance of decommissioning in the form of a surety bond as determined by the decommissioning estimate. The preliminary decommissioning estimate is approximately $550,000. Kona Solar will submit a surety bond to the McHenry County zoning office prior to building permit issuance. According to the Standard Solar AIMA V.8.19.19, we propose financial assurance be posted as follows:

- 10% prior to the end of the first year of operation
- 50% prior to the end of the sixth year of operation
- 100% prior to the end of the eleventh year of operation

Plan Changes

Updates to the decommissioning plan will be submitted within 30 days to the McHenry County Planning and Development Department by the party responsible for decommissioning the SES.

Commercial Solar Ordinance – Title 16: Unified Development Ordinance, Chapter 16.56.030 (Principal Use Standards), Subsection PP (Commercial Solar Energy Facility)

PP. *Commercial solar energy facility.* Conditional use permits for a commercial solar energy facility shall have no time limit, unless the use is abandoned as specified in subsection PP.4. below (Commercial solar energy facility: Abandonment), or the permit is revoked in accordance with § 16.20.040 I. (Revocation of Conditional Use Permits).

- *Application.*
  a. A threatened and endangered species consultation (EcoCAT) from the Illinois Department of Natural Resources is required at the time of conditional use permit application for any site that is five (5) acres or greater in size and currently in agricultural use or undeveloped.
  Kona Solar has completed an Ecological Compliance Assessment Tool (EcoCAT) assessment with the Illinois Department of Natural Resources. Results are attached to this application.

  b. A site plan shall be provided showing all improvements, including structures, fencing, power lines (above and below ground), lighting, and landscaping, at a detail sufficient to understand the location, height, appearance, and area.
  A detailed site plan has been provided that shows existing conditions of the property as well as the proposed improvements. It depicts the solar array, battery energy system, structures, fencing, power lines, driveways, etc.

  c. All other application submittal requirements outlined in the *Planning and Development Department Zoning Application Packet* as published on the McHenry County Website.
  Kona Solar has submitted all requirements outlined in the Planning and Development Department Zoning Application Packet via the McHenry County Portal.

- *Site design.*
  a. Solar panels, structures, and electrical equipment, excluding fences and power lines for interconnection, shall be erected no less than fifty (50) feet from any lot line and no less than one hundred fifty (150) feet from any residence, other than a residence on the same ownership parcel.
  The project panels, structures and electrical equipment will comply with the setback requirements outlined above. These setbacks are incorporated into the Site Plan.

  b. No structures, excluding power lines for interconnection, may exceed twenty (20) feet in height. Power lines shall be placed underground to the maximum extent possible.
  The project will comply with the requirement to keep all structures, (excluding power lines for interconnection), less than 20 feet in height. Power and communication lines running between solar panels will be secured using a cable management system. The remaining

DC power and communication lines will be buried underground. To support the requirement utility interconnection equipment, utility poles and power lines will be installed overhead to connect into existing overhead infrastructure.

c. Lighting must comply with § 16.60.020 (Exterior Lighting).
There is no lighting on site.

d. Solar panels shall have a surface that minimizes glare and shall comply with § 16.60.040D. (Lighting and Glare).
Photovoltaic solar energy systems are designed to reduce reflection and have low potential to produce hazardous glare. Modules are covered with anti-reflective coating and demonstrate less glare than windows and water.

e. The facility shall be situated as to minimize impacts to woodlands, savannas, wetlands, drainage tiles, and encroachment into flood plains. All site development shall comply with the Stormwater Management Ordinance. Any damaged drainage tiles shall be repaired.
Kona Solar has been situated to minimize impacts to impacts to the surrounding environment and will comply with the Stormwater Management Ordinance. The project will repair any damage to the drain tile system.

f. In order prevent erosion, manage run-off, and provide ecological benefit, the facility shall be planted with "low-profile" native prairie species, using a mix appropriate for the region and soil conditions per Illinois Department of Natural Resources (IDNR) standards, as amended from time to time.
The project will provide a Vegetation Management Plan outlining the native prairie species mix appropriate for the region and soil conditions in alignment with the IDNR standards, prior to building permit issuance.

g. Fencing shall be provided in compliance with the National Electrical Code, as applicable. The use of barbed wire must comply with § 16.56.050H.1.c. of this Ordinance
The project will be surrounded by a 7' tall perimeter security fence, per National Electrical Code regulations, to prevent trespassing and vandalism

h. Any part of the facility that is within five hundred (500) feet of a NONPARTICIPATING RESIDENCE, or road right-of-way, shall be landscaped with an arrangement of native shrubs, subject to approval by the County Board, unless the facility is screened from view by existing vegetation.
Kona Solar has included a landscaping buffer on the Site Plan. It exists where the project is within 500 feet of nonparticipating residences or road rights-of-way.

i. Prior to building permit issuance, the operator shall prepare a landscape monitoring and maintenance plan to ensure the establishment and continued maintenance of the native

prairie species, all installed landscape screening, and all existing vegetation that provides required landscape screening.
The operator of the facility will prepare a landscape monitoring and maintenance plan to ensure establishment and oversight of vegetation screening and prairie species maintenance, prior to building permit issuance.

j. Prior to scheduled public hearing, the operator shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture (IDOA), as required by that department.
Kona Solar has executed an Agricultural Impact Mitigation Agreement with IDOA, which is being submitted as a part of this application.

k. Prior to building permit issuance, the operator shall provide an executed road use agreement between the Applicant and the appropriate governing road and highway jurisdictions or the Illinois Department of Transportation (IDOT), showing approved entrances.
Prior to building permit issuance, the project will obtain the required IDOT road permit and enter into a Road Use Agreement with the County, Highway Commissioner or Township Road District, as necessary. The facility owner will pay for any reasonable costs incurred to repair and improve the roads following construction of the facility

- *Safety.*

a. Prior to construction, the operator shall prepare an emergency management plan acceptable to the County and the local fire district and shall be responsible for training of emergency personnel, as needed.
Kona Solar will consult with the local fire district to share site plans. In advance of construction, the project will provide resources to train emergency personnel, as needed.

b. A sign shall be posted providing the name of the operator and a phone number to be used in case of an on-site emergency.
The proposed project will have a sign with the name of the operator and emergency contact number at the entrance to the site.

c. Access shall be granted, provided appropriate advance notice, for periodic inspection of the site by the County or the local fire district.
The project will grant access, with advance notice, for periodic inspections by the County or local fire district.

d. Damaged solar panels shall be removed, repaired, or replaced within sixty (60) days of the damage. The ground shall remain free of debris from damaged solar panels at all times.

In the even solar panels are damaged, they will be removed, repaired or replaced within 60 days. The project will undergo regular inspections to ensure the ground will remain free of debris from damaged panels.

- *Abandonment.*

  - The COMMERCIAL SOLAR ENERGY FACILITY shall be considered abandoned if the operator fails to pay rent as specified in the Agricultural Impact Mitigation Agreement, or it ceases to generate electricity for a period of twelve (12) consecutive months. Reports of electrical power production shall be provided to the County upon request. An abandoned COMMERCIAL SOLAR ENERGY FACILITY must be decommissioned and removed within twelve (12) months from the time it is deemed abandoned. The operator may appeal in writing to the Zoning Enforcement Officer for an extension of time in order to remove the facility or to bring the solar farm back into operation.
    Kona Solar guarantees the facilities will be decommissioned and properly removed within 12 months of the end of the project lifespan, or in the unlikely even that the system ceases power production for a period of 12 months. The project will provide the County with reports of electrical production, upon request. If necessary, the project will appeal Zoning Enforcement Officer in writing for an extension of time to bring the project back into operation, or extend decommissioning.

- *Decommissioning.* Decommissioning and removal of the COMMERCIAL SOLAR ENERGY FACILITY shall be the responsibility of the operator upon abandonment or revocation of the conditional use permit. All operators shall comply with the following:

  a. Prior to building permit issuance, the operator shall prepare a decommissioning plan which shows the final site conditions after the COMMERCIAL SOLAR ENERGY FACILITY has been removed from the property. Decommissioning plans shall require removal of all solar panels, electrical equipment, poles, piles, foundations, and conduits (above and below ground). Access roads, fencing, groundcover, and landscaping may remain only by agreement of property owner.
  Prior to building permit issuance, Kona Solar will prepare a decommissioning plan showing final site conditions and outlining steps to bring the facility back to the original site condition. Kona Solar guarantees that the facilities will be properly removed within 12 months of the end of the project lifetime or in the unlikely event that the system ceases power production for a period of 12 consecutive months. The project will comply with all McHenry County decommissioning requirements.

  b. Prior to building permit issuance, the operator shall submit an engineer's estimate of cost for decommissioning the facility and restoring the site in accordance with the approved decommissioning plan. Upon review and approval by the Zoning Enforcement Officer of the estimate, the operator shall obtain a bond, letter of credit, or other form of surety acceptable to the County to be held by the Department of Planning and Development in the amount of one hundred percent (100%) of the estimate. Provision of this financial

assurance shall be phased in over the first eleven (11) years of the project's operation or as otherwise provided in accordance with the executed Agricultural Impact Mitigation Agreement.

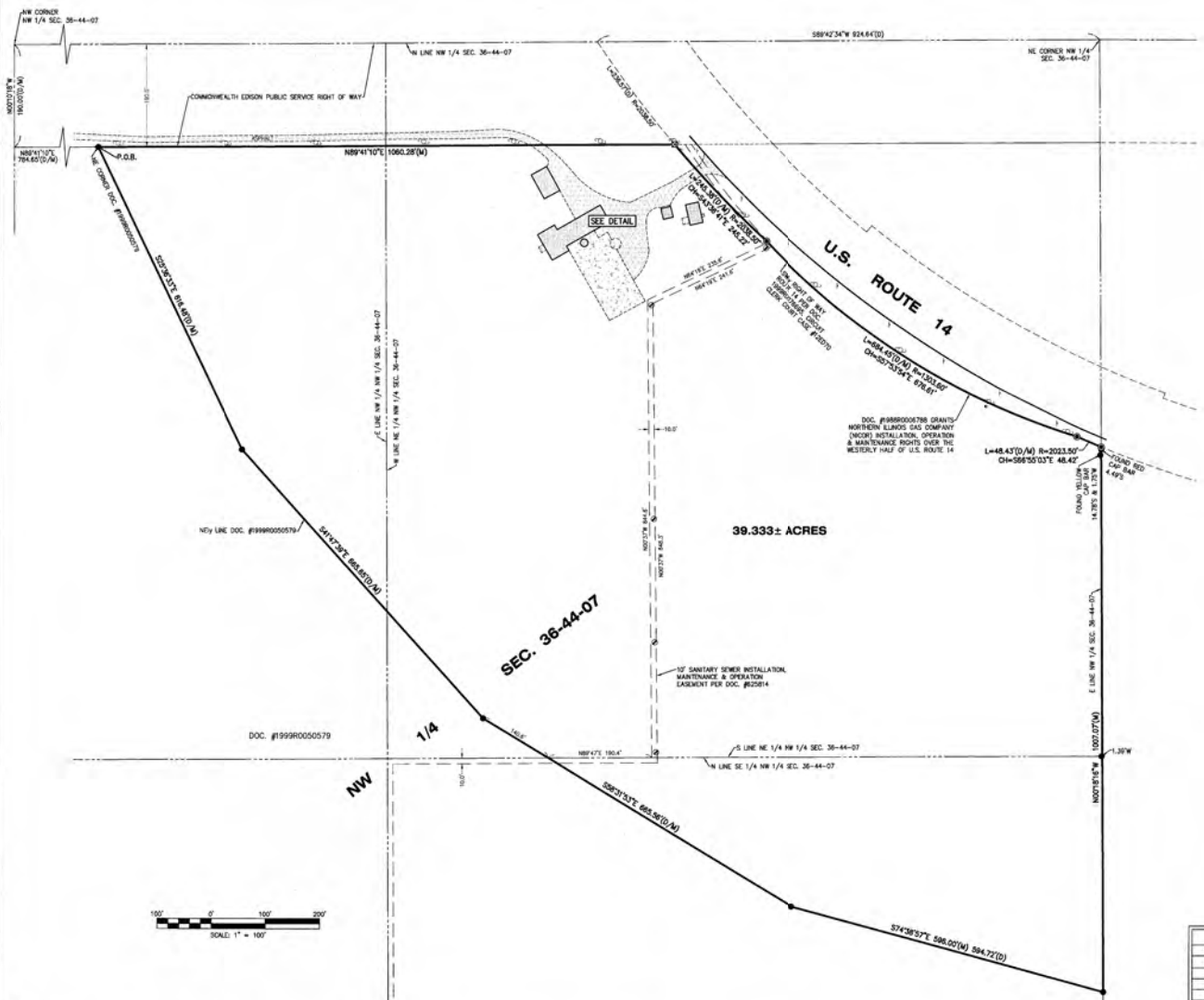
Prior to building permit issuance, Kona Solar will post a decommissioning bond for 100% of the decommissioning estimate to the County. The bond will be phased in over the first 11 years of the project's operation, in accordance with the AIMA.

c. During the operation of the facility, a new engineer's estimate of cost for decommissioning shall be submitted every ten (10) years to the Department of Planning and Development. Upon approval of the estimated costs by the Zoning Enforcement Officer, a revised surety shall be provided to the Department of Planning and Development in the amount of one hundred percent (100%) of the new estimate.

Kona Solar will submit an updated cost estimate for decommissioning every 10 years. Upon approval by the Zoning Enforcement Officer, a revised surety bond will be provided that meets 100% of the updated cost estimate.

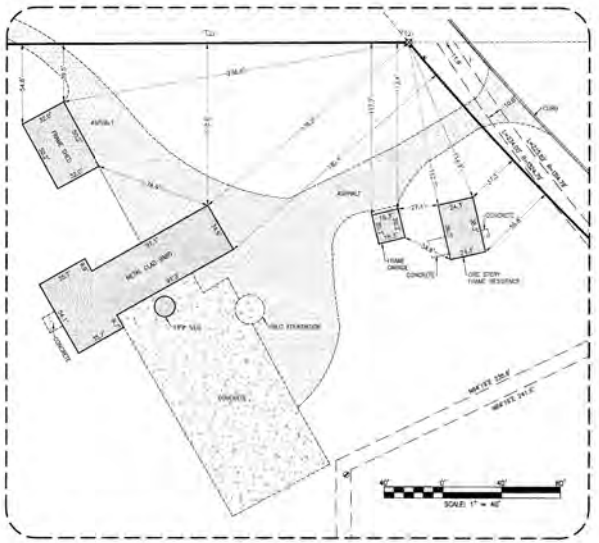
PLAT OF SURVEY

Vanderstappen
Land Surveying, Inc.
www.vanderstar.com
1316 N. Madison St.
Woodstock, Illinois 60098
ph. 815-337-8310 fax 815-337-8314
"Always faithful to the property line"



LEGAL DESCRIPTION

Part of the Northwest Quarter of Section 36, Township 44 North, Range 7 East of the Third Principal Meridian, being described as follows: Commencing at the Northwest corner of said Northwest Quarter; thence South 00 degrees 10 minutes 18 seconds East, 190.00 feet to the South line of the North 190.00 feet of said Northwest Quarter; thence North 89 degrees 41 minutes 10 seconds East along said South line, 784.65 feet to the Northeasterly corner of lands described in Document No. 1999R0050579 and the Place of Beginning; thence South 25 degree 36 minutes 33 seconds East along the Northeasterly line thereof, 616.42 feet; thence South 41 degrees 47 minutes 39 seconds East along said Northeasterly line, 665.65 feet; thence South 58 degrees 31 minutes 53 seconds East along said Northeasterly line, 665.56 feet; thence South 74 degrees 38 minutes 57 seconds East along said Northeasterly line, 596.00 feet to the East line of said Northwest Quarter of Section 36; thence North 00 degrees 18 minutes 16 seconds West along the said East line, 1,007.07 feet to the South right-of-way line of U.S. Route 14 per Final Judgement in Circuit Clerk Court Case #12ED70, dated September 9, 2014; thence Northwesterly 48.43 feet along said Southwesterly right of way line, being along a curve to the right, having a radius of 2,023.50 feet, the chord of which bears North 66 degrees 55 minutes 03 seconds West, for a length of 48.42 feet; thence Northwesterly 684.44 feet along said Southwesterly right of way line, being along a curve to the right, having a radius of 1,303.60 feet, the chord of which bears North 57 degrees 53 minutes 04 seconds West, for a length of 676.61 feet; thence Northwesterly along said Southwesterly right of way line 245.37 feet along a curve to the right, having a radius of 2,036.50 feet, the chord of which bears North 43 degrees 35 minutes 41 seconds West, for a length of 245.22 feet to the South line of the North 190.00 feet of the said Northwest Quarter; thence South 89 degrees 41 minutes 10 seconds West along said South line, 1,060.28 feet to the Place of Beginning in McHenry County Illinois.



LEGEND	
←	DOWN GUY
◊	FOUND ANGLE IRON
●	FOUND IRON BAR
○	FOUND IRON PIPE
⊕	FOUND MAG NAIL
⊠	FOUND MONUMENT
⊡	FOUND ROW MARKER
✱	FOUND RR SPIKE
Ø	MANHOLE
●	SET IRON BAR
I	SIGN
○	SMH
"Ø"	UTILITY POLE
(D)	DEED
(M)	MEASURED

CLIENT: HAMER, SCHUH & CUDA
DRAWN BY: DAM CHECKED BY: APG
SCALE: 1"=100' SEC. 36 T. 44 R. 07 E.
BASIS OF BEARING: ASSUMED
P.I.N.: 13-36-100-010; 13-36-100-015
JOB NO.: 190062 I.D. MBS
FIELDWORK COMP.: 2/25/19 BK. ___ PG. ___
ALL DISTANCES SHOWN IN FEET AND DECIMAL ADD PARTS THEREOF CORRECTED TO 60° F.

NOTE: Only those Building Line Restrictions or Easements shown on a Recorded Subdivision Plat are shown hereon unless the description ordered to be surveyed contains a proper description of the required building lines or easements.

* No distance should be assumed by scaling.
* No underground improvements have been located unless shown and noted.
* No representation as to ownership, use, or possession should be hereon implied.
* This Survey and Plat of Survey are void without original embossed or colored seal and signature affixed.

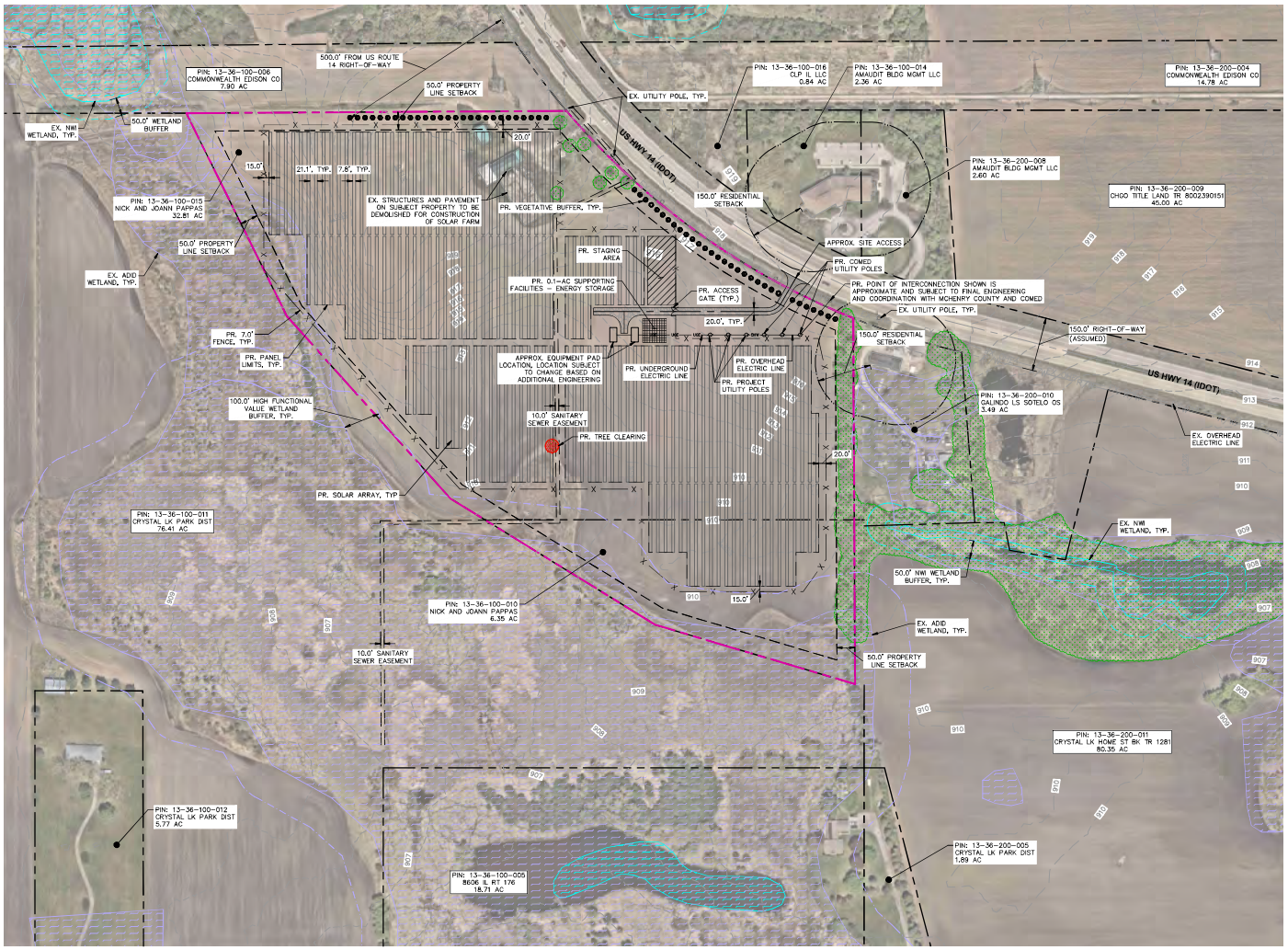
Compare your description and site markings with this plat and AT ONCE report any discrepancies which you may find.

STATE OF ILLINOIS)
) S.S.
COUNTY OF McHENRY)

In my professional opinion, and based on my observations, I hereby certify that we have surveyed the premises above described, and that the plat hereon is a true representation of the said survey and have inspected the FLOOD INS. RATE MAP COMMUNITY PANEL NO. 17111C0215J, dated 11/16, 20 08, and have determined that the subject property is located within Zone(s) X - areas determined to be outside the 0.2% annual chance floodplain
Dated at Woodstock, McHenry County, Illinois, 3/1 AD., 20 19
This professional service conforms to the current Illinois minimum standards for a boundary survey.

Vanderstappen Land Surveying, Inc.
Design Firm No. 184-002792

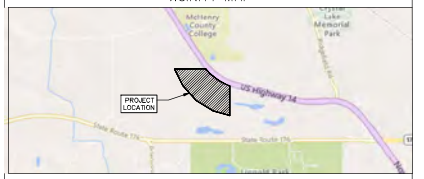
By: _____
Illinois Professional Land Surveyor No. 3657



GRAPHIC SCALE IN FEET
0 75 150 300

NORTH

VICINITY MAP



NOT TO SCALE

LEGEND

ROAD LABEL	US HIGHWAY 14
EXISTING ROAD CENTERLINE	
RIGHT OF WAY (ASSUMED)	R/W R/W
PROJECT BOUNDARY (PER MCHENRY COUNTY GIS)	
PROPERTY LINE (PER KMZ FILE, PROVIDED BY CULTIVATE ON 05/14/2025)	
PROPERTY LINE SETBACK (PER MCHENRY COUNTY SOLAR ORDINANCE)	
EX. SANITARY SEWER EASEMENT (TRACED PER PLAT OF SURVEY, PROVIDED BY CULTIVATE 06/10/2025)	
EX. RESIDENCE/STRUCTURE (TRACED PER AERIAL)	
RESIDENTIAL STRUCTURE SETBACK (PER MCHENRY COUNTY SOLAR ORDINANCE)	
EX. OVERHEAD ELECTRIC/TRANSMISSION (TRACED PER AERIAL)	EX OHE
EX. UTILITY POLE (TRACED PER AERIAL)	
EX. NWI WETLAND (DOWNLOADED PER NWI ON 06/02/2025)	
NWI WETLAND BUFFER	
EX. ADID WETLAND (DOWNLOADED PER MCHENRY COUNTY GIS ON 07/10/2025)	
ADID WETLAND BUFFER	
EX. VEGETATION AREA	
EX. CONTOURS	XXX
EX. FLOW (DIRECTION AND SLOPE)	XX%
PR. STAGING AREA	
PR. GRAVEL ACCESS ROAD	
PR. PANELS	
PR. PANEL LIMITS	
PR. EQUIPMENT PAD	
PR. FENCE	X X
PR. UNDERGROUND ELECTRIC	UGE UGE
PR. OVERHEAD ELECTRIC	OHW
PR. UTILITY POLE	
PR. TREE CLEARING	
PR. SUPPORTING FACILITIES - ENERGY STORAGE	

NOTES

1. THE PURPOSE OF THIS PLAN IS FOR SPECIAL USE PERMIT REVIEW AND APPROVAL BY MCHENRY COUNTY TO CONSTRUCT A SOLAR ENERGY SYSTEM.
2. THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING MCHENRY COUNTY, GOOGLE EARTH, AND USGS TOPOGRAPHIC INFORMATION.
3. THE SUBJECT PROPERTY DOESN'T LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (17111C0215J) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
4. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTER/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS DURING FINAL ENGINEERING.
5. STORMWATER MANAGEMENT FACILITIES TO BE PROVIDED AS REQUIRED BY COUNTY AND/OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING. REQUIREMENTS TO BE DETERMINED DURING FINAL ENGINEERING.
6. A SOIL EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE NPDES STANDARDS WILL BE PROVIDED TO THE COUNTY DURING FINAL ENGINEERING.
7. SETBACKS SHOWN ON THIS PLAN ARE BASED ON THE MCHENRY COUNTY SOLAR ORDINANCE.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL TRAFFIC MAY PROCEED NORMALLY AGAIN.
9. SOLAR PANELS SHALL NOT EXCEED 20 FEET IN HEIGHT WHEN ORIENTED AT MAXIMUM TILT ACCORDING TO THE MCHENRY COUNTY SOLAR ORDINANCE.
10. THE FACILITY WILL BE PLANTED WITH LOW-PROFILE NATIVE PRAIRIE SPECIES, USING A MIX APPROPRIATE FOR THE REGION AND SOIL CONDITIONS PER ILLINOIS DEPARTMENT OF NATURAL RESOURCES (DNR) STANDARDS.

SITE DATA TABLE

PIN #'S	13-36-100-015, 13-36-100-010
PROPERTY OWNER	NICK JOANN PAPPAS
SITE ADDRESS	8717 US HWY 1 CRYSTAL LAKE, IL 60012
ZONING JURISDICTION	MCHENRY COUNTY, A-1
CURRENT LAND USE	0011: FARM LAND WITH BUILDINGS
PROPOSED USE	COMMERCIAL SOLAR ENERGY FACILITY
PROJECT BOUNDARY AREA	40.2 ± AC
AREA WITHIN FENCE	27.9 ± AC
PRELIMINARY SOLAR AREA	22.4 ± AC
PR. TREE CLEARING	0.03 ± AC
NEAREST EDGE OF PUBLIC R.O.W. SETBACK	50'
ADJACENT PROPERTY LINE SETBACK	50'
DWELLING UNIT SETBACK	150'
MMDC/MWAC	7.5/5.0
NUMBER OF MODULES	12,400
GCR	37.0%

No.	REVISIONS	DATE

CULTIVATE POWER

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

570 LAKE COOK RD SUITE 200
DEERFIELD, IL 60015
WWW.KIMLEY-HORN.COM

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT	268262057
ORIGINAL DATE	06/12/2025
SCALE	AS SHOWN
DESIGNED BY	SFH
DRAWN BY	DPL
CHECKED BY	JG

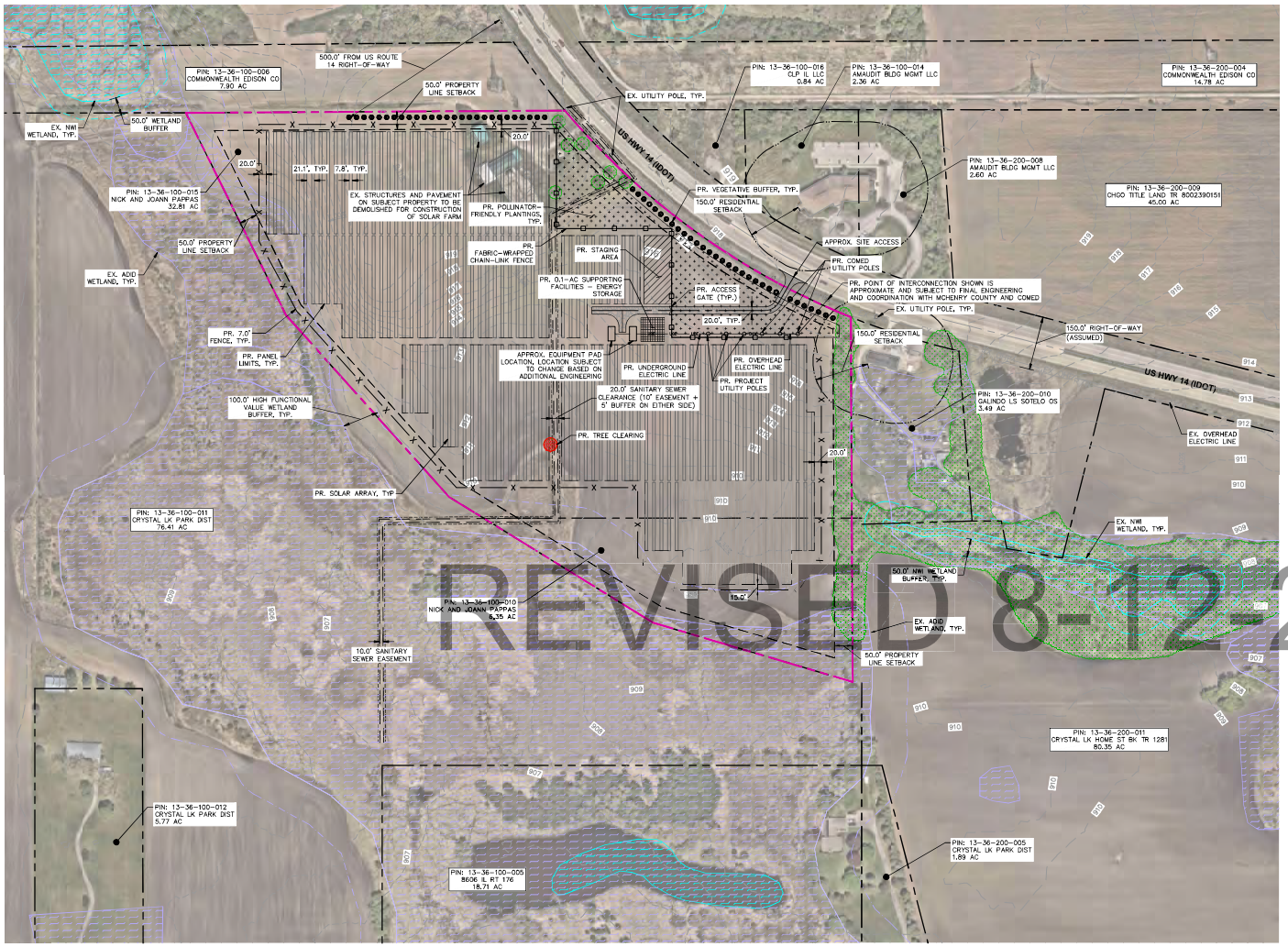
ZONING SITE PLAN

KONA SOLAR PROJECT, LLC

MCHENRY COUNTY, IL

SHEET NUMBER
EX-1

Drawing name: K:\DFS_LDEV\268262057_Cultivate_Kona_IL\2 Design\2-04\Exhibits\Zoning Site Plan-268262057_rescue.dwg Layout: Jul 18, 2025 11:13am by SanchezMirah
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

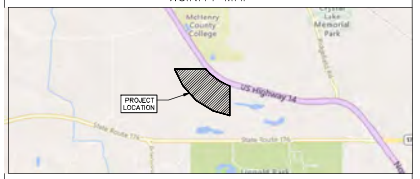


REVISED 8-12-25

NORTH

GRAPHIC SCALE IN FEET
0 75 150 300

VICINITY MAP



NOT TO SCALE

LEGEND

ROAD LABEL	US HIGHWAY 14
EXISTING ROAD CENTERLINE	
RIGHT OF WAY (ASSUMED)	R/W R/W
PROJECT BOUNDARY (PER MCHENRY COUNTY GIS)	
PROPERTY LINE (PER KMZ FILE, PROVIDED BY CULTIVATE ON 05/14/2025)	
PROPERTY LINE SETBACK (PER MCHENRY COUNTY SOLAR ORDINANCE)	
EX. SANITARY SEWER EASEMENT (TRACED PER PLAT OF SURVEY, PROVIDED BY CULTIVATE 06/10/2025)	
SANITARY SEWER EASEMENT BUFFER	
EX. RESIDENCE/STRUCTURE (TRACED PER AERIAL)	
RESIDENTIAL STRUCTURE SETBACK (PER MCHENRY COUNTY SOLAR ORDINANCE)	
EX. OVERHEAD ELECTRIC/TRANSMISSION (TRACED PER AERIAL)	EX OHE
EX. UTILITY POLE (TRACED PER AERIAL)	
EX. NWI WETLAND (DOWNLOADED PER NWI ON 06/02/2025)	
NWI WETLAND BUFFER	
EX. ADID WETLAND (DOWNLOADED PER MCHENRY COUNTY GIS ON 07/10/2025)	
ADID WETLAND BUFFER	
EX. VEGETATION AREA	
EX. CONTOURS	XXX
EX. FLOW (DIRECTION AND SLOPE)	XX%
PR. STAGING AREA	
PR. GRAVEL ACCESS ROAD	
PR. PANELS	
PR. PANEL LIMITS	
PR. EQUIPMENT PAD	
PR. FENCE	X X
PR. FABRIC-WRAPPED CHAIN-LINK FENCE	
PR. UNDERGROUND ELECTRIC	UGE UGE
PR. OVERHEAD ELECTRIC	OHW
PR. UTILITY POLE	
PR. TREE CLEARING	
PR. SUPPORTING FACILITIES - ENERGY STORAGE	
PR. VEGETATIVE BUFFER	
PR. POLLINATOR FRIENDLY PLANTINGS	

NOTES

1. THE PURPOSE OF THIS PLAN IS FOR SPECIAL USE PERMIT REVIEW AND APPROVAL BY MCHENRY COUNTY TO CONSTRUCT A SOLAR ENERGY SYSTEM.
2. THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING MCHENRY COUNTY, GOOGLE EARTH, AND USGS TOPOGRAPHIC INFORMATION.
3. THE SUBJECT PROPERTY DOESN'T LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (17111C0215J) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
4. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTER/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS DURING FINAL ENGINEERING.
5. STORMWATER MANAGEMENT FACILITIES TO BE PROVIDED AS REQUIRED BY COUNTY AND/OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING. REQUIREMENTS TO BE DETERMINED DURING FINAL ENGINEERING.
6. A SOIL EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE NPDES STANDARDS WILL BE PROVIDED TO THE COUNTY DURING FINAL ENGINEERING.
7. SETBACKS SHOWN ON THIS PLAN ARE BASED ON THE MCHENRY COUNTY SOLAR ORDINANCE.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL TRAFFIC MAY PROCEED NORMALLY AGAIN.
9. SOLAR PANELS SHALL NOT EXCEED 20 FEET IN HEIGHT WHEN ORIENTED AT MAXIMUM TILT ACCORDING TO THE MCHENRY COUNTY SOLAR ORDINANCE.
10. THE FACILITY WILL BE PLANTED WITH LOW-PROFILE NATIVE PRAIRIE SPECIES, USING A MIX APPROPRIATE FOR THE REGION AND SOIL CONDITIONS PER ILLINOIS DEPARTMENT OF NATURAL RESOURCES (DNR) STANDARDS.
11. ALL FENCING ALONG US HIGHWAY 14 WILL BE CHAIN-LINK FENCE WRAPPED IN FABRIC.

SITE DATA TABLE

PIN #'S	13-36-100-015, 13-36-100-010
PROPERTY OWNER	NICK JOANN PAPPAS
SITE ADDRESS	8717 US HWY 1 CRYSTAL LAKE, IL 60012
ZONING JURISDICTION	MCHENRY COUNTY, A-1
CURRENT LAND USE	0011: FARM LAND WITH BUILDINGS
PROPOSED USE	COMMERCIAL SOLAR ENERGY FACILITY
PROJECT BOUNDARY AREA	40.2 ± AC
AREA WITHIN FENCE	27.9 ± AC
PRELIMINARY SOLAR AREA	22.4 ± AC
PR. TREE CLEARING	0.03 ± AC
NEAREST EDGE OF PUBLIC R.O.W. SETBACK	50'
ADJACENT PROPERTY LINE SETBACK	50'
DWELLING UNIT SETBACK	150'
MWDC/MWAC	7.5/5.0
NUMBER OF MODULES	12,400
GCR	37.0%

No.	REVISIONS	DATE

CULTIVATE POWER

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

570 LAKE COOK RD SUITE 200
DEERFIELD, IL 60015
WWW.KIMLEY-HORN.COM

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT	268262057
ORIGINAL DATE	06/12/2025
SCALE	AS SHOWN
DESIGNED BY	SFH
DRAWN BY	DPL
CHECKED BY	JG

ZONING SITE PLAN

KONA SOLAR PROJECT, LLC

MCHENRY COUNTY, IL

SHEET NUMBER
EX-1

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\DFS_LEC\268262057_Cultivate_Kona_LLC\2 Design\Civil\Exhibits\Zoning Site Plan-268262057.dwg Layout: Aug 12, 2025 10:14am by: SaraTenerife-Herah

McHENRY-LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

NATURAL RESOURCES INFORMATION REPORT

25-054-4715

July 3, 2025

This report has been prepared for:
Kona Solar Project, LLC

Contact Person:
Dylan Haber

PREPARED BY:
McHENRY-LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT
1648 S. EASTWOOD DR.
WOODSTOCK, IL 60098
PHONE: (815) 338-0444
www.mchenryswcd.org

The McHenry-Lake County Soil & Water Conservation District is an equal opportunity provider and employer.

EXECUTIVE SUMMARY OF NRI REPORT #25-054-4715

It is the opinion of the McHenry-Lake County Soil and Water Conservation District Board of Directors that this report as summarized on these pages are pertinent to the requested zoning change.





Picture 1: Looking westward at non-cropped area.



Picture 2: Looking east from non-cropped area.

Groundwater Contamination Potential and Recharge Areas:



Aquifer Sensitivity Map (*This is the area beneath the soil profile down to bedrock)
The Geologic features map indicates that the parcel is comprised of B1 geologic limitations. B1 has a moderately high aquifer contamination potential.



Sensitive Aquifer Recharge Areas (Includes the soil profile and underlying geology).
The Sensitive Aquifer Recharge Map indicates the parcel is within an area designated as Sensitive Aquifer Recharge.



Soil Leachability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet).
The Soil Leachability Index indicates 15.3 acres or 38.9% of the parcel contains high leachable soils, for fertilizers, on the parcel (identified in red).

Soil Permeability (This is only the soil profile within the parcel from the surface down to approx. 5 feet. Soil permeability is a reflection of the speed in which water (with or without pollutants) can move through the soil profile.)
The USDA-NRCS Soil Survey Map of the area indicates 38.3 acres or 97.7% of the parcel contains highly permeable soils.

Soil Limitations (This evaluates the parcel from the surface down to approximately 5 feet.):

Erosion Ratings
The NRCS Soils Survey indicates 5.9 acres or 14.9% of the parcel contains highly erodible soils.



Prime Farmland Soils
The Natural Resources Conservation Service (NRCS) Soil Survey indicates 29.3 acres or 74.7% of the parcel is comprised of prime farmland soils and 8.6 acres or 22.0% of the parcel is comprised of prime farmland if drained soils (identified in shades of blue and green).



Ground-Based Solar Arrays
The Natural Resources Conservation Service (NRCS) Soil Survey indicates 38.8 acres or 99.0% of the parcel has very limited soils for ground-based solar arrays (identified in red).



Hydric Soils
The NRCS Soil Survey indicates 9.5 acres or 24.3% of the parcel contains hydric soils (identified in red and orange).

Floodplain Information:

The Flood Insurance Rate Map
Indicates the parcel is outside of the 100-year floodplain.

Flood of Record Map (Hydrologic Atlas)
The Flood of Record Map for this area indicates the parcel has not previously flooded.

Wetland Information:



USDA-NRCS Wetland Inventory
The NRCS Wetlands Inventory identifies 0.95 acres of FW: Farmed Wetland (identified in orange) and 1.31 acres of FWP: Farmed Wetland Pasture on the parcel (identified in red).



ADID Wetland Inventory
The ADID Wetland Study identifies 0.96 acres of farmed wetland L34, 0.09 acres of wetland L39, and 1.22 acres of high quality wetland L40, on the parcel. L40 requires 100 feet of buffer and L34 and 39 require 50 feet of buffer

*Aerial photography indicates wetlands L34 and L40 may be impacted by the development according to the Zoning Site Plan, prepared by Kimley Horn, dated 6/12/2025. It is recommended that a wetland delineation be completed to accurately define the wetland boundaries and associated buffers. Additional permitting will be required for isolated and jurisdictional wetland impacts by McHenry County and/or U.S. Army Corps of Engineers.

Flooding Frequency
The NRCS Soil Survey indicates that flooding is not probable on the parcel. The chance of flooding is nearly 0% in any year. Flooding occurs less than once in 500 years.



Ponding Frequency
The NRCS Soil Survey indicates that frequent ponding occurs on 9.5 acres or 24.3% of the parcel. Frequent means that ponding occurs, on average, more than once in 2 years. The chance of ponding is more than 50 % in any year (identified in blue).

Cultural Resources: Office maps indicate there are no known cultural/historical features within the parcel in question.



Preserved or Recognized Ecological Sites: Office maps indicate there are three McHenry County Natural Area Inventory sites near the parcel.

Lippold Park Marsh (DOR03) is a protected site which is threatened by water table alteration.

Route 176 Sedge Meadow (DOR09) is an unprotected sedge meadow which is threatened by water table alteration, brush encroachment, Reed Canary Grass, and grazing.

West Crystal Lake Prairie (NUN22) is an unprotected wet silt loam prairie threatened by water table alteration and brush encroachment.

Additionally, a portion of the parcel is within the Lake in the Hills Fen's Class III Groundwatershed).

Woodlands: There are existing mature trees surrounding the existing structures and along the eastern boundary of the parcel.

Agricultural Areas: Office Maps indicate there are no State designated agricultural areas on the parcel in question.

Land Evaluation Site Assessment (LESA)
The Land Evaluation Score for the parcel is 88.97. A Site Assessment was not completed due to the Agricultural zoning on the parcel.

Agricultural Impact Mitigation Agreement: We have received notice from the Illinois Department of Agriculture that an Agricultural Impact Mitigation Agreement has been filed.

ADDITIONAL CONCERNS

The Board recommends that areas between panels and within the buffers be planted to a native prairie mix to help increase water infiltration and reduce runoff from the site. It is recommended that a planting and maintenance plan be developed with the landowner to ensure that noxious weeds are controlled, and native plantings are properly installed and managed. The petitioner should refer to the planting requirements of the Illinois Department of Natural Resources and McHenry County Department of Planning & Development.

Agenda Item No: 13

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: Special Event Request – Running Depot and Dirt Circus Fun Run – September 13, 2025

Staff Recommendation: Motion to approve the application for a Special Event for the Dirt Circus Run/Walk to be held on September 13, 2025, pursuant to the recommended staff conditions listed

Staff Contact: Kathryn Cowlin, Director of Community Development
Victoria Wojcik, Community Development Analyst

Background:
This is a request to hold the Dirt Circus in Crystal Lake. The event is planned for Saturday, September 13, 2025. The run/walk will begin at 7:00 a.m. and finish at approximately 12:00 p.m. on Williams Street. The Dirt Circus special event is a social run, not a race, and is planned to have about 200 participants. The event organizers have been in contact with, and received support from, the Downtown Crystal Lake association. This is the first year this event will be held.

The run will start at the Brink Street Plaza in front of the Running Depot, then onto Brink Street, Grant Street, Railroad Street, North Walkup Avenue to Veteran Acres, and back to the Brink Street Plaza. No roads will be closed, as the participants will utilize the sidewalks to run. Vendors will be set up at the Brink Street Plaza for the end of the race. Food and alcoholic beverages will be served from Benedict's La Strata in the DORA section of the Brink Street Plaza as well. The event will also include bathrooms and dumpsters in the South corner of the Brink Street Market lot behind the Raue Center.

The request requires action by the City Council due to the utilization of the Brink Street Plaza and parking lot.

City staff has reviewed the petitioner's request and does not have concerns. If the request is approved, the following conditions are recommended:

1. The event is approved for Saturday, September 13, 2025, from 7:00 a.m. to 12:00 p.m.

2. Participants must stay on the sidewalks and designated roadsides to prevent the obstruction of vehicular traffic until they enter Veteran Acres trails.
3. Sidewalks must not block off any usual traffic.
4. Streets are not to be marked with paint or any permanent materials.
5. All debris created by the event must be cleaned up during and after the event.
6. Crystal Lake Park District approval to use the Veteran Acres trails must be submitted before September 5, 2025.
7. Any nearby business affected by the event shall be notified prior to September 5, 2025.
8. The consumption of alcohol must stay within the Designated Outdoor Refreshment Area (DORA) space in the Brink Street Plaza.
9. Benedict's La Strata must follow the DORA regulations when serving alcohol for the Brink Street Plaza.
10. No alcohol sales or consumption aside from Benedict's La Strata is allowed at this event.
11. The volunteers must carry cellular phones or radios to contact 911 in case of an emergency. Volunteers are not to direct traffic.
12. A weather monitoring person is required during the event and an emergency plan shall be in place in the event of severe weather.
13. Any barricades or lane blocking devices shall be placed so that firefighters are able to move them if emergency vehicles need access.
14. The areas used for the event must maintain a minimum of 20' Fire / EMS access throughout the event area for emergency vehicle access.
15. Fire Hydrants / Fire Department connects must remain clear (no parking).
16. Any building used for the event must remain below the posted occupancy load limit.
17. Egress pathways shall be maintained throughout the event. No egress doors shall be blocked by setup of any special event equipment.
18. Tents having an area exceeding 400 square feet (700 square feet with open sides) shall require a permit in accordance with (2018) IFC Section 3103.2. Please contact the Fire Rescue Department (815-356-3640) if utilizing a tent that shall require a permit. Inspections shall be completed prior to the event.
19. All electrical equipment shall be listed/labeled for outdoor use and shall comply with NFPA 70.
20. All electrical cords shall be covered to avoid a potential trip hazard. Electrical cords shall utilize an approved, commercially available cord protector.
21. Food trucks shall be inspected PRIOR to the event (If used for event). Food trucks are required to provide a valid City of Crystal Lake certificate of inspection upon demand. City of Crystal Lake employees shall provide identification. A list of currently inspected food trucks is available by contacting Community Development.
22. Promotional banners and signage were not included with this request. Any temporary signage/banner requires a Limited Duration sign permit through Community Development Department.
23. In the case of inclement weather, an alternate date can be approved by the City Manager.

The applicant has been made aware of these recommended conditions and advised to attend the August 19, 2025 City Council meeting to answer any questions.

Votes Required to Pass:

Simple majority vote

CITY OF Crystal Lake ILLINOIS

SPECIAL EVENTS APPLICATION

Please PRINT or TYPE

EVENT NAME Dirt Circus

EVENT LOCATION Downtown Crystal Lake Square

This application should be completed by the "Event Manager", who will be the main coordinator and contact person for the event. Completing the application form will give you a good idea of the types of arrangements, approvals and documents that will be necessary for your special event. Please complete as much of the following information as possible before turning in the application. Once the application is turned in, a staff liaison will be in contact with you who will guide you in completing the remainder of the application and fulfilling City requirements for the event.

Please note that City Council approval may be required for certain special events/requests

GENERAL EVENT INFORMATION

1. TYPE OF EVENT (Check all that apply)

❑ Carnival	❑ General use of City-owned property
❑ Circus	❑ Parade
❑ Festival	❑ Outdoor Sales
❑ Filming	☑ Run/Walk Event
❑ Other Fun Run	

2. General Description/Purpose of the event:
The event will feature a Fun Run to Veterans Acres and is part of Dirt Circus, a nation series of free community event.
The event is designed to celebrate local races, race directors and the trail running community. It is a social run, not a race.
We anticipate close to 200 runners. The event will include vendor booths for participants to enjoy post run.

3. Will the event require the use of City-owned property?	☑ Yes	❑ No
4. Is a Site Map/Route Map attached?	☑ Yes	❑ No
5. Is the event an annual/recurring event?	❑ Yes	❑ No
6. Will the event require a public street/sidewalk to be blocked or closed?	❑ Yes	☑ No
7. Will the event require use of a public parking lot?	❑ Yes	☑ No

8. Number of persons scheduled to monitor and work the event: 10+ people

9. Estimated attendance: 200 people

10. Is a "rain date" proposed? Y ☐ or N ☑ If yes, what is the rain date? _____

ORGANIZATION INFORMATION

11. ☐ Organization is registered with the State of Illinois as a Non-Profit Organization
12. Name of Event Manager: Ali Andrews
13. Contact Information for Event Manager:

Address: 30-H North Williams Street

(Please check preferred means of contact)

Daytime phone: [redacted] ☑

Emergency phone: _____ ☐

Cell phone: [redacted] ☐

Email: ali@therunningdepot.com ☐

EVENT OPERATION

14. Date(s) of the event (including time for assembling and/or dismantling support structures):

Set Up: 9/13/25

Event: 9/13/25

Dismantling: 9/13/25

15. Hours of the event:

Set Up: 5-7am

Event: 7am-12pm

Dismantling: 12-2pm

CITY MANAGER'S OFFICE

16. Will the event hold a raffle of any kind? ☐ Yes* ☑ No

***If yes, please complete attached Raffle License Application**

17. Is the Certificate of Insurance and Hold Harmless Agreement attached? ☑ Yes ☐ No

***Attached please see the City's insurance provisions (Required for all special events)**

18. Will alcoholic beverages be served or sold at the event? ☑ Yes* ☐ No

If yes, what type of alcoholic beverages will be served?
Beer and hard seltzers will be served. One of the vendors Benedicts La Strata will be serving the food and alcohol from their resteraunt across the courtyard. They obtain a liquor and food liscene and will be serving off their property.

Please complete the attached Temporary Liquor License Application

COMMUNITY DEVELOPMENT

19. Will the event require tents or temporary structures? ☑ Yes ☐ No

20. What signs or advertising do you anticipate needing for the event?

Temporary community event signs	☐ Yes	☑ No
Temporary neighborhood event signs	☐ Yes	☑ No
Directional signs	☐ Yes	☑ No
Banner	☐ Yes	☑ No

21. Will food be served or sold at the event? ☑ Yes* ☐ No

If yes, please contact the McHenry County Health Department and please provide the City with a copy of the approval from the McHenry County Health Department.

22. Will the event include vendors selling products? ☐ Yes ☑ No

Description of Products N/A

23. Will the event require portable sanitation facilities? ☑ Yes ☐ No

Name of Company Service Sanitation
Address 401 Blaine St, Gary, IN 46406
Phone 800-909-5646

24. Will the use of electricity be required for the event? ☐ Yes ☑ No

If yes, please specify the power requirements and plan for provision
N/A

PUBLIC SAFETY *Please remember to post the Firearm Concealed Carry Act sign*

25. Does this event require assistance from the Police Department? ☐ Yes ☑ No

26. Does this event require an on-site ambulance? ☐ Yes ☑ No

27. Will the event require sound amplification of any kind? ☐ Yes ☑ No

28. Please state what provisions have been made for first aid and emergency medical services, if any:
N/A

PUBLIC WORKS

29. Will the event require barricades for traffic control? ☐ Yes* ☑ No

If yes, please complete the attached Barricade Borrowing Application

30. Will the event require water? ☐ Yes ☑ No

Specify N/A

Please remember to include the necessary attachments, if possible. (Please check those included)

- ❑Barricade Borrowing Application
- ☑Certificate of Insurance/Hold Harmless Agreement
- ❑Raffle License Application
- ❑Temporary Liquor License Application

The undersigned has read the foregoing application and knows the contents thereof, and affirms that the information is true and correct to the best of his/her knowledge, information and belief. For special events, the undersigned agrees to indemnify and hold harmless the City, together with its officers, agents, volunteers, and employees from all losses, damages, injuries, claims, demands and expenses arising out of, or as the result of, the operation of the event, the special City services provided for the event, and/or the permit issued for same, and/or the condition, maintenance and use of the public property in connection with the event, as well as for any injury to or sustained by a City employee, agent, or contractor in conjunction with the event authorized by the City.

Signature

07/14/25
Date

Ali Andrews
Print Name

STAFF USE ONLY

Assigned City Department:_____

Assigned City Staff Liaison: _____

Meeting with Event Organizer Required: ❑ Yes ❑ No

City Council Approval Required: ❑ Yes ❑ No

Good morning Pam,

As Agent for the Owners of Brink Street Market, please use this e-mail as the Landlord's approval to use the plaza for the Dirt Circus Run from 6AM to 11AM on September 13, 2025, pending the City of Crystal Lake's approval. Additionally, we will prepare an event agreement for all vendors to sign, which will include insurance information. ALL vendors will set up tables on the plaza will have to provide a COI.
Our Legal department will provide this agreement.
You will be required to make sure the plaza is cleaned up after the event, including any trash associated with the event.

Please reach-out with any other questions.

Wendy Ruttenberg
Portfolio Manager, Commercial Management Services

FRIEDMAN REAL ESTATE | TOP WORK PLACES Detroit Free Press

707 Lake Cook Road, Suite 318 Deerfield, IL 60015 - Local
34975 West Twelve Mile Road Farmington Hills, MI 48331 - Corporate
P 847-900-8481 | C [redacted]
Wendy.Ruttenberg@freg.com | www.friedmanrealestate.com

Victoria Wojcik

From: Executive Director <info@downtowncl.org>
Sent: Thursday, July 10, 2025 5:07 PM
To: ali@therunningdepot.com; Laurrie Fitzgerald; Victoria Wojcik
Subject: Re: Dirt Circus | The Running Depot

Stop - Look - Think - Decide: This email originated from outside of the City. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hello Ali,

What a cool sounding event! I look forward to highlighting it!

I'm cc'ing Victoria and Laurrie from the City, one of whom can respond regarding utilizing the D.O.R.A. space (which I believe ends at the end of August), as well as any other permissions you may need to obtain for the event. I'm happy to write a letter of support from the Downtown/Main Street organization if requested.

Let me know if there's something I can help promote from the Downtown's newsletter, social media, and event page.

Best of luck!
Joy

On Thu, Jul 10, 2025 at 8:30 AM ali@therunningdepot.com <ali@therunningdepot.com> wrote:

> Hello!
>
> My name is Ali Andrews, and I am reaching out on behalf of The Running Depot. We are excited to share that we are partnering with an organization called *Dirt Circus* to host a community event on **Friday, September 13th**.
>
> The event will feature a **Fun Run to Veterans Acres** and is part of *Dirt Circus*, a national series of free community events organized by Ultra Signup. These events are designed to celebrate local races, race directors, and the vibrant trail running community. They highlight local races, clubs, brands, and businesses, and include a social run, food, raffles, camaraderie, and more.
>
> We anticipate over **100 participants**, and the event will include **vendor booths** for participants to enjoy post-run. We have already received permission from our landlord to use the **courtyard area** for vendors. However, they recommended we also contact the city to:
>
> 1. **Inform you** of the event and expected turnout.
> 2. **Confirm approval** to also use the **D.O.R.A. (Designated Outdoor Refreshment Area)** spaces in front of our business for additional vendor setup.
>
> We want to ensure everything is in accordance with city regulations and are happy to provide any further details or submit any necessary permits or documentation.

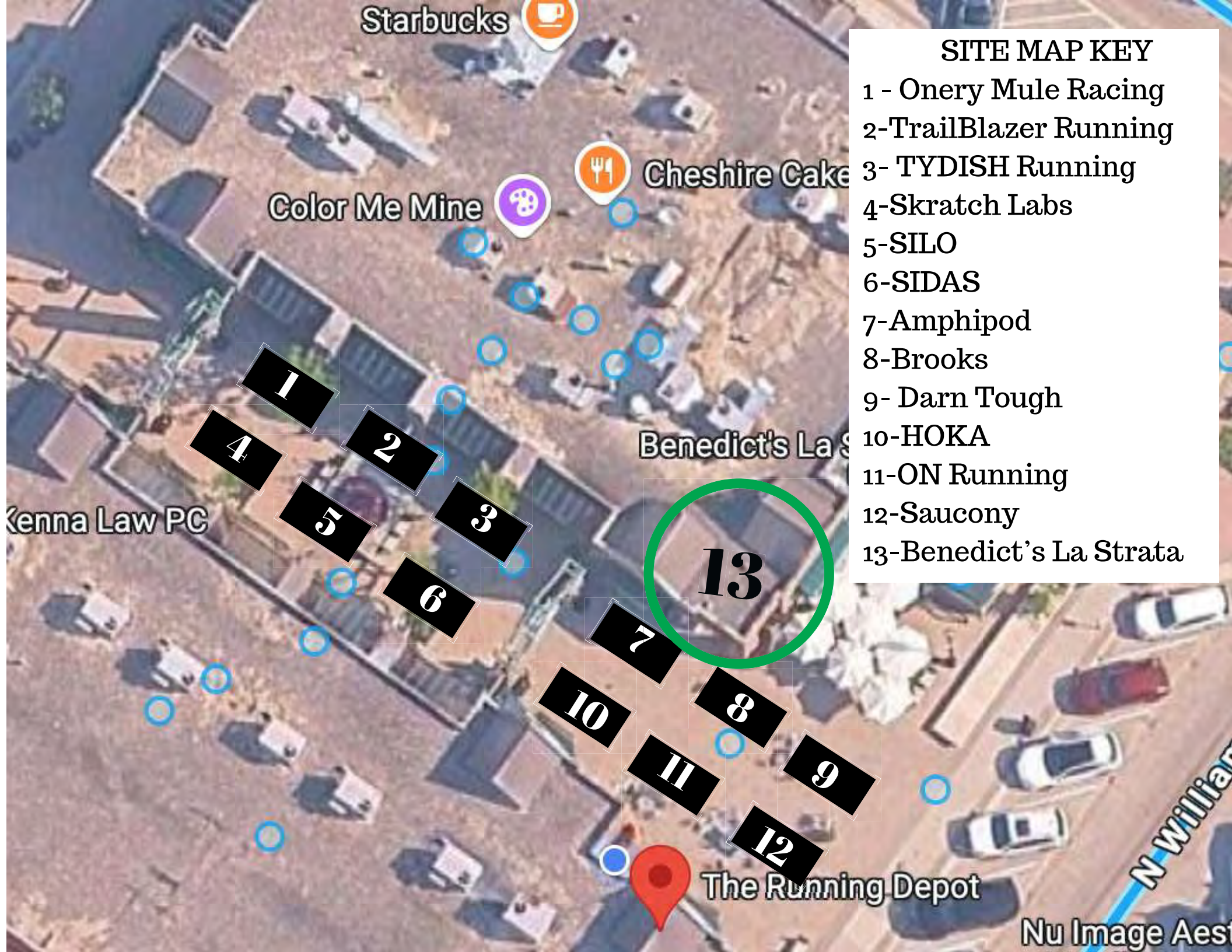
Thank you for your time and support of community events like this. Please let me know if there are any additional steps we need to take.

Thank you,

Ali Andrews
The Running Depot
30-H N. Williams St. Crystal Lake 60014
(815) 687-6009 (cell) | (815) 788-9755 (store) | www.therunningdepot.com

--

Joy Neal
Executive Director
Downtown Crystal Lake/Main Street
815-479-0835
www.downtowncl.org



SITE MAP KEY

1 - Onery Mule Racing
2-TrailBlazer Running
3- TYDISH Running
4-Skratch Labs
5-SILO
6-SIDAS
7-Amphipod
8-Brooks
9- Darn Tough
10-HOKA
11-ON Running
12-Saucony
13-Benedict's La Strata


Queen Nails
Color Me Mine
Benedict's La Strata
Brunch
RAU CENTER
PORTA POTTY
DUMPSTERS
The Running De
41

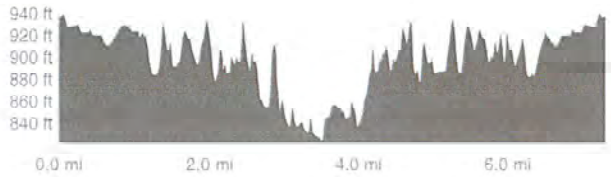
STRAVA

Dirt Circus Chicago 2025 - 7 miler

https://www.strava.com/routes/3377680163693165176

7.2 mi	807 ft	1:18:27
Distance	Elevation Gain	Est. Moving Time





Route recommendations may be incomplete and/or inaccurate and may contain sections of private land and/or sections of terrain that could be challenging or hazardous. Always use your best judgement about the safety of road and trail conditions and follow traffic and property laws.

DIRECTION	DISTANCE
Proceed onto off-road waypoint. No data available	0.0 mi
Left onto Brink Street	0.0 mi
Right onto Grant Street	0.0 mi
Left onto Gates St	
Right onto North Walkup Avenue	0.4 mi
~~Right onto East Terra Cotta Avenue~~	~~0.5 mi~~
Proceed onto off-road waypoint. No data available	0.5 mi
Continue on Kettle View Trail	1.0 mi
Left onto Prairie View Trail	1.5 mi
Proceed onto off-road waypoint. No data available	1.6 mi
Continue on Moraine View Trail	2.1 mi
Proceed onto off-road waypoint. No data available	2.2 mi
Proceed onto off-road waypoint. No data available	2.5 mi
Continue on Easy Incline	2.6 mi
Proceed onto off-road waypoint. No data available	2.6 mi
Continue on Moraine View Trail	2.8 mi
Continue on Steep Climb	2.8 mi
Left onto Oak View Trail	2.9 mi
Proceed onto off-road waypoint. No data available	3.5 mi
Left onto Oak View Trail	3.7 mi
Proceed onto off-road waypoint. No data available	4.0 mi
Right onto Med Climb	4.1 mi
Make a U-turn onto Med Climb	4.2 mi
Proceed onto off-road waypoint. No data available	4.2 mi
Continue on Moraine View Trail	4.3 mi
Proceed onto off-road waypoint. No data available	4.6 mi
Continue on Moraine View Trail	4.8 mi
Right onto McHenry County Prairie Trail	5.0 mi
Left onto Moraine View Trail	5.0 mi
Proceed onto off-road waypoint. No data available	5.2 mi
Continue on Prairie View Trail	5.4 mi

Dirt Circus Chicago 2025 - 7 miler

Running Route

Save Share

Moderate

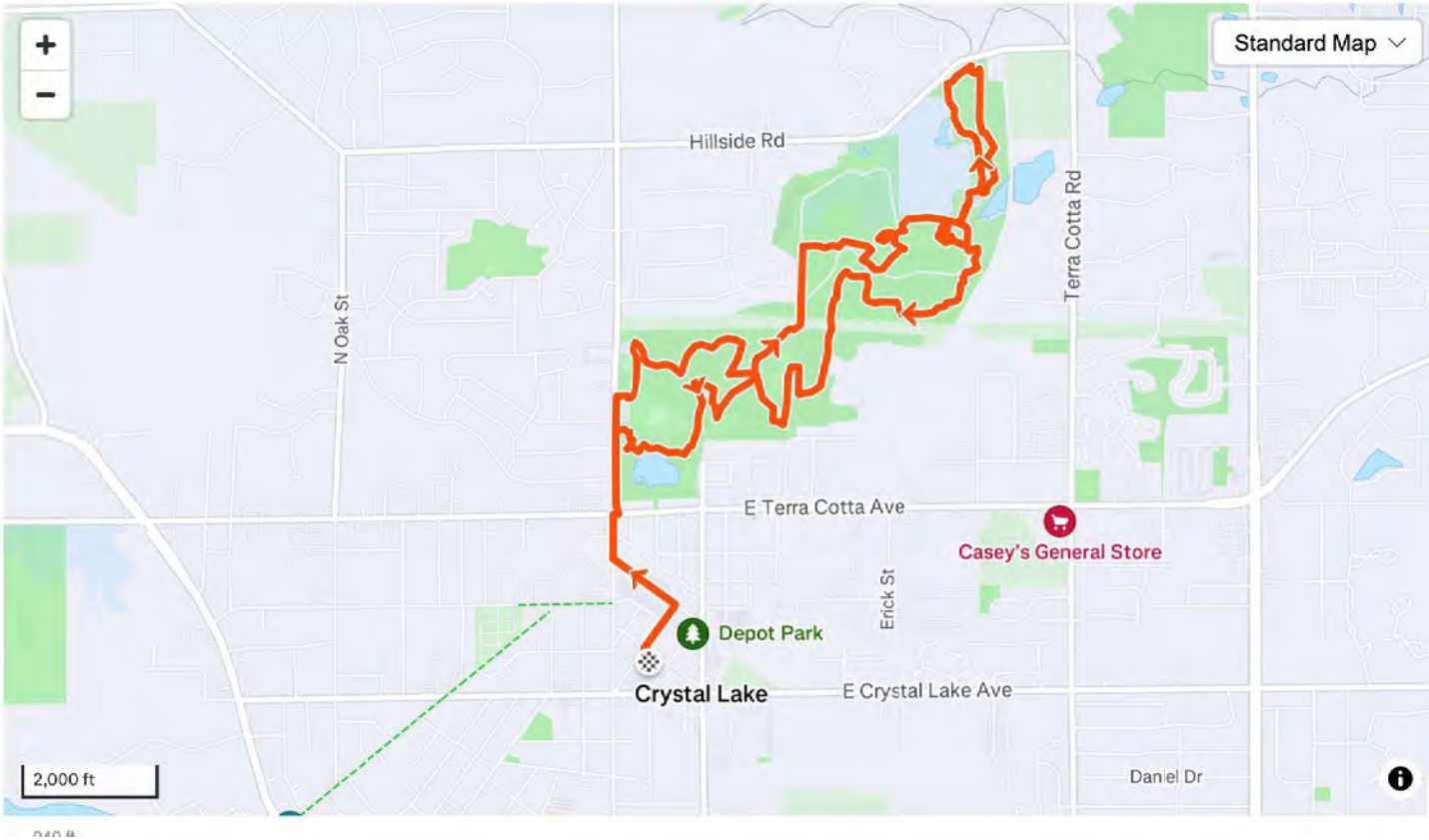
7.29 mi 807 ft

Begin at The Running Depot and run to Veteran Acres Park for a beautiful 7.3 mile run.

CREATED BY

Ultra S
July 8, 2025 · Public

Route and Elevation



Agenda Item No: 14

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: REPORT OF THE PLANNING & ZONING COMMISSION

Request: Construction of an addition to the home with Variations to encroach into the street side setback by 16.41 feet, encroach into the side yard setback by 0.9 feet, and exceed the maximum hard-surface coverage by 12.3%

Applicant: Jon Adee, owner
779 Oak Court

PZC Recommendation: To approve the Planning and Zoning Commission (PZC) recommendation and adopt an Ordinance granting the Variations to the setback encroachments and the hard surface coverage at 56% subject to the recommended conditions of approval for 779 Oak Court.

Staff Contact: Kathryn Cowlin, Director of Community Development
Elizabeth Maxwell, City Planner

Background:

- Requests: To construct a new two-story addition to the home that encroaches into the side yard setback, street side setback and increases the hard surface coverage.
- Zoning: The site is zoned R-2 Single Family and used as a single-family home.
- Land Use: The land use map shows the area as Urban Residential. This land use designation is appropriate for this use.
- The lot is non-conforming and in existing neighborhoods an average setback is taken on both the street side and the lake side. The street side setback is 51.41 feet. The existing home has a front porch that was enclosed that will be removed. A new and safe second story addition will be added to this area. It lines up with the existing wall plane, which encroaches into the 4.9-foot side yard setback.
- The lot currently exceeds the maximum 50% hard-surface coverage. The lot is at approximately 2,976 Sf, which is 56 %. The addition will add 504 square feet (including a portion of the house that is being removed). The increase would cause the lot to be at 3,312 square feet of coverage approximately 62%.

- Staff suggested reducing some existing coverage to off-set the proposed new coverage. The architect is working with staff and submitted an exhibit showing the start to reduce the existing coverage by removing and installing a permeable paver system for some areas. The petitioner has agreed to the revised condition that the coverage will remain at the 56%.

PZC Highlights:

The following discussion took place during the Planning and Zoning Commission hearing:

- The petitioner went through the hardship criteria on how they meet the standards. They are improving the property, making it safer, keeping the main character of this 100-year old home and making it functional for a family.
- The commission was concerned with the coverage on the lot. They asked about the other lots in the area and their coverage levels: The following addresses have requested variations for setbacks or coverage:
    - 751 Oak Court – (Three-car garage street side variation) 34.8% coverage
    - 783 Oak Court – (Two-story garage with dormers) 75% coverage
    - 1141 North Shore – (Home addition) 53.2% coverage
    - 921 North Shore – (New Home) 50% coverage [55.6% requested]
    - 161 Edgewater – (Addition and covered deck) 52.3% coverage
- The PZC found that the petition met the Findings of Facts for the setback variations, but they did not show the hardship for the hard-surface coverage.

The Planning and Zoning Commission recommended **approval (6-0)** of the petitioner's request

1. Be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
   A. Application (Adee, received 06/12/25)
   B. Narrative (ALA, dated 07/23/25, received 06/12/25)
   C. Site Plan (Schmitt, dated 06/04/25, received 06/12/25)
   D. Architectural Plans (ALA, dated 06/10/25, received 06/12/25)
   E. Plat of Survey (Schmitt, dated 05/12/25, received 06/12/25)

2. ~~The gravel driveway area shall be removed and improved with a permeable paver system. Provide engineering plans at permit~~. **Modified with #4 by PZC**

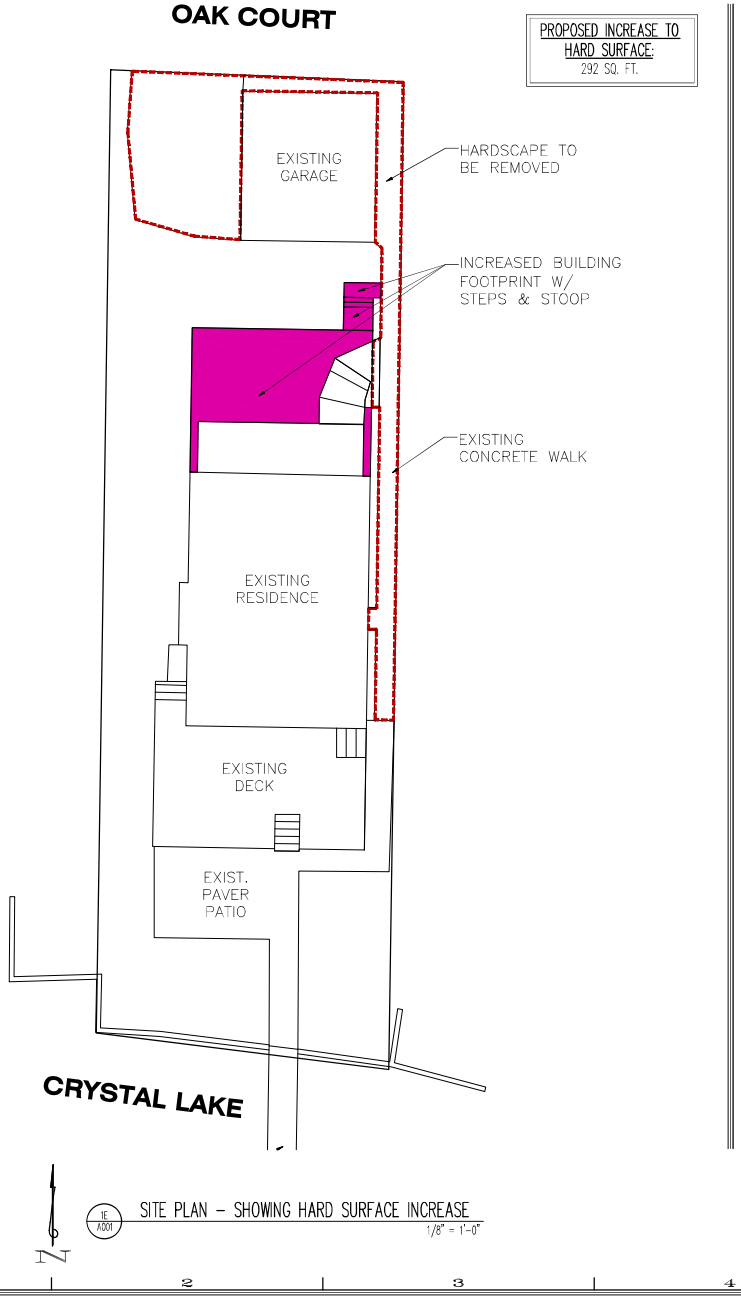
3. An infiltration trench is required to accommodate the additional hard-surface coverage.

4. ~~Remove all hard surface walkway on the east side of the lot between the garage and property line running south all the way to the south end of the deck and property line to leave a clear grass area for water absorption and to reduce hard-surface coverage~~. **Work with staff to modify the plans to not increase the hard-surface coverage and maintain the 56% existing coverage. Modified by PZC**

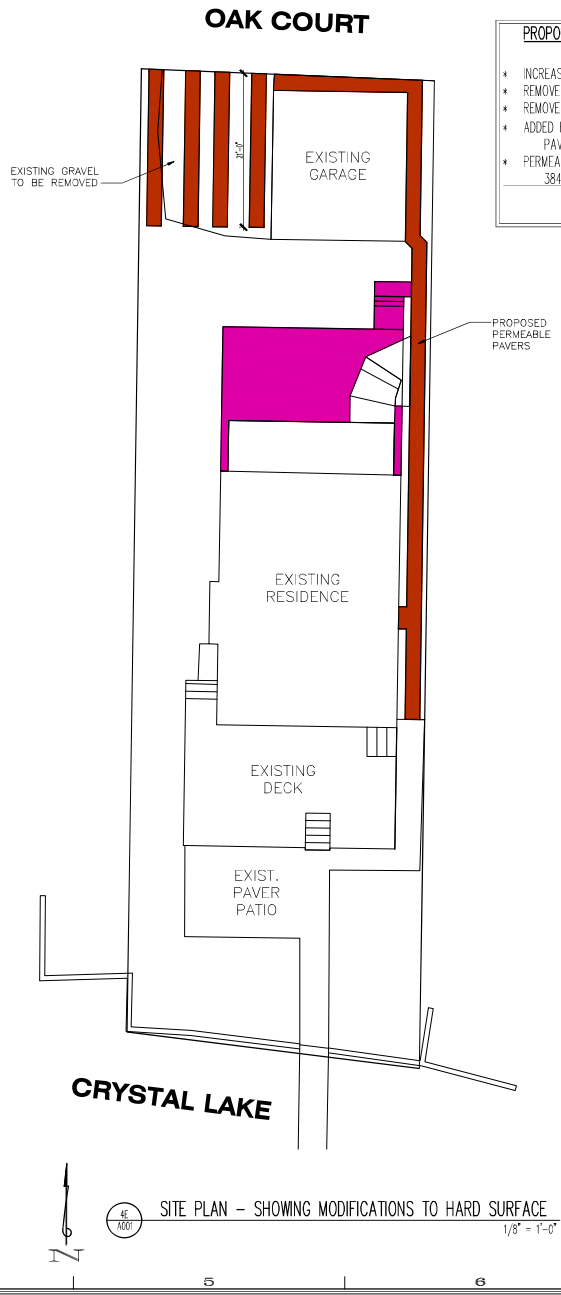
5. No alterations to the front (lake side elevation) of the home or deck are permitted that encroach into the front yard setback.

6. The petitioner shall address all of the review comments and requirements of the Stormwater Consultant, Public Works and Engineering Department, and Community Development Department.

Votes Required to Pass: A simple majority vote



1E A001 SITE PLAN – SHOWING HARD SURFACE INCREASE
1/8" = 1'-0"



4E A001 SITE PLAN – SHOWING MODIFICATIONS TO HARD SURFACE
1/8" = 1'-0"

COPYRIGHT AS DATED ©
A.L.A. Architects & Planners, Inc.

Architects & Planners, Inc.
IL Telephone: 815-788-9200 WI Telephone: 262-249-0211
2600 Dalton Ronald Rd. 17b, Crystal Lake, IL 60014
98 W. Main St. Lake Geneva, WI 53147
40 Crystal St. Cary, IL 60013
1790 E. Racine Ave. Waukesha, WI 53186

ADEE RESIDENCE
779 OAK COURT
CRYSTAL LAKE, IL 60014

SITE PLANS

Job Number: 25075
Sheet Number: A001
File Name: 25075A000

Acknowledgement Form

Regarding the Variations for the garage addition at 779 Oak Court, please check one of the choices and sign below.

X I hereby acknowledge that I have read, understand, and agree to the staff review comments and recommended conditions contained in the staff report, city staff reviews, and consultant reviews (if applicable).

☐ I hereby acknowledge that I have read, understand, and agree to most of the staff review comments and recommended conditions contained in the staff report, city staff reviews, and consultant reviews (if applicable) but have concerns with the following items:

_____

_____

Petitioner's Name: _____ Date: 8.12.25
Signature

Recommended Conditions:

1. Be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
   A. Application (Adee, received 06/12/25)
   B. Narrative (ALA, dated 07/23/25, received 06/12/25)
   C. Site Plan (Schmitt, dated 06/04/25, received 06/12/25)
   D. Architectural Plans (ALA, dated 06/10/25, received 06/12/25)
   E. Plat of Survey (Schmitt, dated 05/12/25, received 06/12/25)

2. An infiltration trench is required to accommodate the additional hard-surface coverage.

3. Work with staff to modify the plans to not increase the hard-surface coverage and maintain the 56% existing coverage.

4. No alterations to the front (lake side elevation) of the home or deck are permitted that encroach into the front yard setback.

5. The petitioner shall address all of the review comments and requirements of the Stormwater Consultant, Public Works and Engineering Department, and Community Development Department.

PIQ Map
779 Oak Court



Ord. No.
File No.

The City of Crystal Lake Illinois

AN ORDINANCE GRANTING A SIMPLIFIED RESIDENTIAL VARIATION TO CONSTRUCT A TWO-STORY ADDITION TO THE HOUSE THAT WOULD ENCROACH 16.41 FEET INTO THE 51.41-FOOT AVERAGED STREET SIDE SETBACK, 0.9 FEET INTO THE 4.9-FOOT SIDE YARD SETBACK AND ALLOW 56% HARD-SURFACE COVERAGE AT 779 OAK COURT

WHEREAS, pursuant to the terms of a Petition (File #PLN-2025-103) before the Crystal Lake Planning and Zoning Commission, the Petitioner has requested Variations from Article 3 to allow the construction of an addition to the home, which encroaches into the street side setback by 16.41 fee leaving a 35-foot setback, encroaches into the side yard setback by 0.9 feet leaving a 4-foot setback, and exceeding the maximum hard-surface coverage by 6% allowing 56% coverage at 779 Oak Court; and

WHEREAS, the Planning and Zoning Commission of the City of Crystal Lake, pursuant to notice duly published on July 19, 2025 in the Northwest Herald, held a public hearing at 7:00 p.m., on August 6, 2025 at City Hall at 100 W. Woodstock Street, Crystal Lake, Illinois to consider the proposed variations; and

WHEREAS, on August 6, 2025, the Planning and Zoning Commission, having fully heard and considered the testimony of all those present at the public hearing who wished to testify, made findings of fact as required by law and recommended to the Mayor and City Council of the City of Crystal Lake that the proposed Variation be approved, as documented in the minutes, and

WHEREAS, it is in the best interests of the CITY OF CRYSTAL LAKE that the Variations be issued as requested in said Petition.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CRYSTAL LAKE, McHENRY COUNTY, ILLINOIS, as follows:

Section I: That Variations from Article 3 to allow the construction of an addition to the home, which encroaches into the street side setback by 16.41 fee leaving a 35-foot setback, encroaches into the side yard setback by 0.9 feet leaving a 4-foot setback, and exceeding the maximum hard-surface coverage by 6% allowing 56% coverage at 779 Oak Court (19-06-176-009), Crystal Lake, Illinois is hereby approved

Section II: Said variations are issued subject to the following conditions:

1. Be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
   A. Application (Adee, received 06/12/25)

B. Narrative (ALA, dated 07/23/25, received 06/12/25)
C. Site Plan (Schmitt, dated 06/04/25, received 06/12/25)
D. Architectural Plans (ALA, dated 06/10/25, received 06/12/25)
E. Plat of Survey (Schmitt, dated 05/12/25, received 06/12/25)

2. An infiltration trench is required to accommodate the additional hard-surface coverage.

3. Work with staff to modify the plans to not increase the hard-surface coverage and maintain the 56% existing coverage.

4. No alterations to the front (lake side elevation) of the home or deck are permitted that encroach into the front yard setback.

5. The petitioner shall address all of the review comments and requirements of the Stormwater Consultant, Public Works and Engineering Department, and Community Development Department.

Section III: That the City Clerk be and is hereby directed to amend all pertinent records of the City of Crystal Lake to show the issuance of a Variation in accordance with the provisions of this Ordinance, as provided by law.

Section IV: That this Ordinance shall be in full force and effect from and after its passage, approval and publication as provide by law.

DATED at Crystal Lake, Illinois, this 19th day of August, 2025.

City of Crystal Lake, an
Illinois municipal corporation

_____
Haig Haleblian, MAYOR

SEAL

ATTEST:

_____
CITY CLERK

Passed: August 19, 2025
Approved: August 19, 2025

#2025-103
779 Oak Court – Variation
Project Review for Planning and Zoning Commission

Meeting Date: August 6, 2025

Request: The construction of an addition to the home with the following variations:

a. Encroachment into the 51.41-foot street side setback by 16.41 feet, leaving a 35-foot setback from the street.

b. Encroachment into the 4.9-foot side yard setback by 0.9 feet, leaving a 4-foot setback from the side lot line.

c. Increase of 504 square feet of hard-surface coverage for a lot total of 62.3%, which exceeds the allowable 50% by 12.3%.

Location: 779 Oak Court

Acreage: Approximately 5,300 square feet

Existing Zoning: R-2 Single Family

Surrounding Properties:
North: R-2 Single Family
South: R-2 Single Family
East: R-2 Single Family
West: R-2 Single Family

Staff Contact: Elizabeth Maxwell (815.356.3615)

Background:

- The property is an existing single-family residential lot fronting Crystal Lake.
- The existing home is set approximately 3.8 to 4-feet from the east side property line.
- The property already exceeds the allowable 50% hard-surface coverage by 6.5% approximately 350 square feet.
- The average street side setback is established at 51.41 feet. The requirement is to use the average since it exceeds the typical 21-foot street side setback for a non-conforming lot in the R-2 zoning district by 10 feet.

Development Analysis:

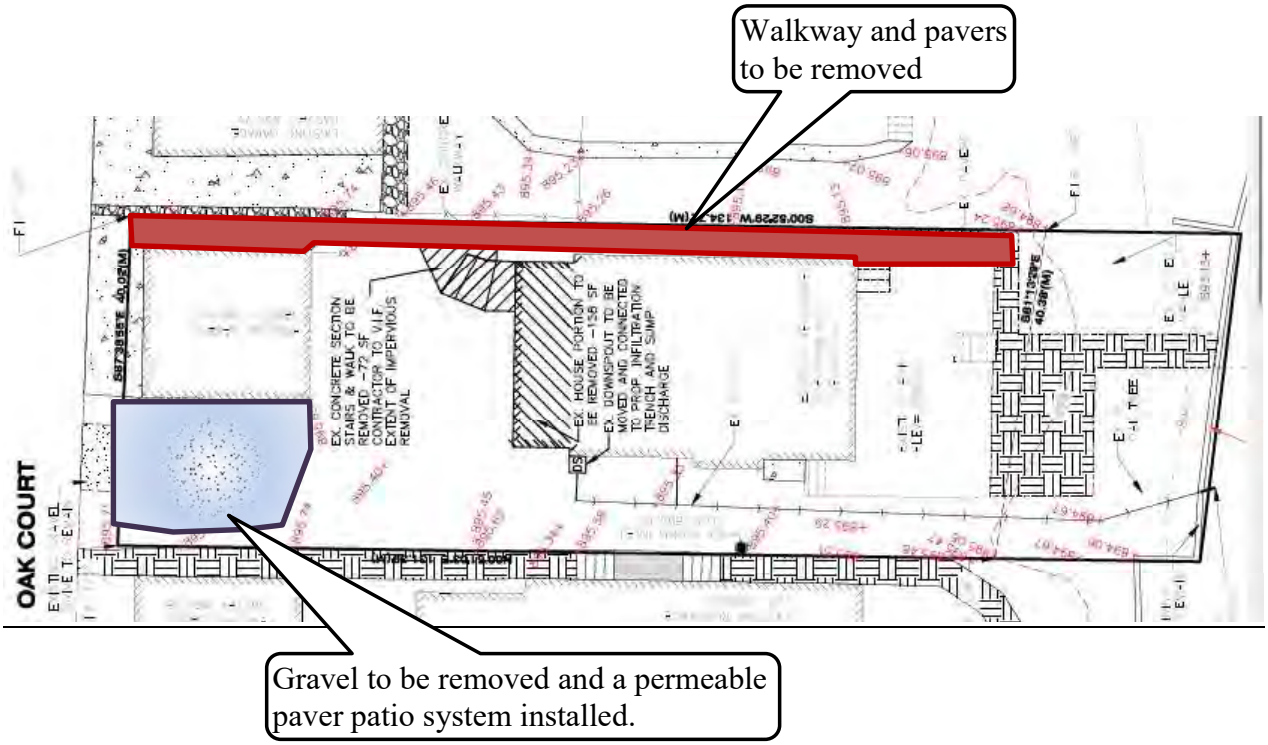
General

- Request: To construct a new two-story addition to the home that encroaches into the side yard setback, street side setback and increases the hard surface coverage.
- Zoning: The site is zoned R-2 Single Family and used as a single-family home.

- Land Use: The land use map shows the area as Urban Residential. This land use designation is appropriate for this use.

Site Plan

- The project includes removal of a portion of the front of the home. The home is currently 47.6 feet from the street side property line, which already encroaches into the street side setback. The addition will project 19 feet 8 inches. This will leave 35 feet to the street property line and 12 feet to the detached garage.
- The existing home is approximately 4 feet from the side property line. The new addition would line up with the existing home. There is an existing concrete walkway along that side of the property.
- The hard-surface coverage already exceeds the 50%. The proposed improvements would add 504 square feet of hard-surface coverage. To off-set the proposed increase staff has suggested a reduction in two areas.
    - The existing gravel driveway is 330 square feet, placing it in a permeable paver system would reduce the hard-surface coverage to 247.5 square feet.
    - The walkway is 304 square feet. Also, a slight portion of the paver area will also be removed.
    - This will reduce the hard-surface coverage by 386.5 square feet and the proposed add is 504 square feet, which would be an increase of only 117.5 square feet.



Comprehensive Land Use Plan 2030 Vision Summary Review:

The Comprehensive Plan designates the subject property as Urban Residential, which allows for existing and future single-family residential uses. The following goal is applicable to this request:

Land Use - Residential

Goal: Encourage a diversity of high quality housing in appropriate locations throughout the city that supports a variety of lifestyles and invigorates community character.

Supporting Actions: Promote safe, clean and well-maintained housing by encouraging regular repair and maintenance of housing.

Findings of Fact:

ZONING ORDINANCE VARIATIONS

The petitioner is requesting variations from Article 3 and Article 4 to allow encroachment into the 51.41-foot street side setback by 16.41 feet, leaving a 35-foot setback from the street, encroachment into the 4.9-foot side yard setback by 0.9 feet, leaving a 4-foot setback from the side lot line, and increase of 504 square feet of hard-surface coverage for a lot total of 62.3%, which exceeds the allowable 50% by 12.3%.

The Unified Development Ordinance lists specific standards for the review and approval of a variation. The granting of a variation rests upon the applicant proving practical difficulty or hardship caused by the Ordinance requirements as they relate to the property. To be considered a zoning hardship, the specific zoning requirements; setbacks, lot width and lot area must create a unique situation on this property. It is the responsibility of the petitioner to prove hardship at the Planning and Zoning Commission public hearing.

Standards

When evidence in a specific case shows conclusively that literal enforcement of any provision of this Ordinance would result in a practical difficulty or particular hardship because:

a. The plight of the property owner is due to unique circumstances, such as, unusual surroundings or conditions of the property involved, or by reason of exceptional narrowness, shallowness or shape of a zoning lot, or because of unique topography, or underground conditions.

☒ *Meets* ☐ *Does not meet*

b. Also, that the variation, if granted, will not alter the essential character of the locality.

☒ *Meets* ☐ *Does not meet*

For the purposes of supplementing the above standards, the Commission may take into consideration the extent to which the following facts favorable to the application have been established by the evidence presented at the public hearing:

a. That the conditions upon which the application for variation is based would not be applicable generally to other property within the same zoning classification;

☒ *Meets* ☐ *Does not meet*

b. That the alleged difficulty or hardship has not been created by any person presently having interest in the property;

☒ *Meets* ☐ *Does not meet*

c. That the granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located; or

☒ *Meets* ☐ *Does not meet*

d. That the proposed variation will not impair an adequate supply of light or air to adjacent property, will not unreasonably diminish or impair the property values of adjacent property, will not unreasonably increase congestion in the public streets, substantially increase the danger of fire or otherwise endanger public safety.

☒ *Meets* ☐ *Does not meet*

Where the evidence is not found to justify such conditions, that fact shall be reported to the City Council with a recommendation that the variation be denied.

Recommended Conditions:

If a motion to recommend approval of the petitioner's request is made, it should be with the following conditions:

1. Be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
   A. Application (Adee, received 06/12/25)
   B. Narrative (ALA, dated 07/23/25, received 06/12/25)
   C. Site Plan (Schmitt, dated 06/04/25, received 06/12/25)
   D. Architectural Plans (ALA, dated 06/10/25, received 06/12/25)
   E. Plat of Survey (Schmitt, dated 05/12/25, received 06/12/25)

2. The gravel driveway area shall be removed and improved with a permeable paver system. Provide engineering plans at permit.

3. An infiltration trench is required to accommodate the additional hard-surface coverage.

4. Remove all hard surface walkway on the east side of the lot between the garage and property line running south all the way to the south end of the deck and property line to leave a clear grass area for water absorption and to reduce hard-surface coverage.

5. No alterations to the front (lake side elevation) of the home or deck are permitted that encroach into the front yard setback.

6. The petitioner shall address all of the review comments and requirements of the Stormwater Consultant, Public Works and Engineering Department, and Community Development Department.

Application for Simplified Residential Variation

Application Number: _____ FOR OFFICE USE ONLY

Project Name: _____

Date of Submission: _____

I. Applicant

Chris Russo ALA Architects & Planners, Inc.

Name

2600 Behan Road Crystal Lake, Illinois 60014

Street

Crystal Lake, Illinois 60014

City State Zip Code

815-788-9200

Telephone Number Fax Number E-mail address

II. Owner of Property (if different)

~~Jerry & Mary Adee~~ Jon Adee

Name

779 Oak Court Crystal Lake, Illinois 60014 [redacted]

Address Telephone Number

III. Project Data

1. a. Location/Address: 779 Oak Court Crystal Lake, Illinois 60014

   b. PIN #: 19-06-176-009

2. Description of proposal/Reason for request (including how the standards for variation are met, any unique circumstance of the property, or particular hardship):

DESCRIBE THE UNIQUE CIRCUMSTANCES OF THE PROPERTY:

Please see attached

IS THE HARDSHIP SELF-CREATED?

ARE THE CONDITIONS APPLICABLE TO OTHER PROPERTIES IN THE SAME ZONING CLASSIFICATION?

WILL THE VARIATION ALTER THE ESSENTIAL CHARACTER OF THE LOCALITY?

WILL THE VARIATION, IF GRANTED BE DETRIMENTAL TO PUBLIC WELFARE OR INJURIOUS TO OTHER PROPERTY?

WILL THE VARIATION AS PROPOSED IMPAIR ADEQUATE SUPPLY OF LIGHT OR AIR TO ADJACENT PROPERTY; DIMINISH PROPERTY VALUE; INCREASE CONGESTION IN PUBLIC STREETS; SUSBTANTIALLY INCREASE THE DANGER OF FIRE; OT ENDANGER PUBLIC SAFETY?

3. List any previous variations that are approved for this property:
We are not aware of any previously approved variations for this property

IV. Signatures

CHRISTOPHER RUSSO / AIA ARCHITECTS / PLANNERS INC.

PETITIONER: Print and Sign name (if different from owner) Date 7/15/2025

As owner of the property in question, I hereby authorize the seeking of the above requested action.

7-17-25

OWNER: Print and Sign name Date

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

CRYSTAL LAKE PLANNING AND ZONING COMMISSION
WEDNESDAY, AUGUST 6, 2025
HELD AT THE CRYSTAL LAKE CITY COUNCIL CHAMBERS

The meeting was called to order by Mr. Greenman at 7:00 p.m.

CALL TO ORDER

On roll call, commissioners, Jeff Greenman, Stacy Mason, Laura Dzielski, Al Skluzacek, Bill Gronow and Scott Smith were present. Kathy Repholz was absent. Mr. Greenman confirmed that a quorum was present.

City Planner Elizabeth Maxwell, Assistant City Planner Darrell Moore and Development Services Representative Caroline Zapata were present from staff.

Mr. Greenman informed those in attendance that the meeting was being recorded for broadcast and future playback on the City's website. He led the group in the Pledge of Allegiance.

2025-103 – 779 OAK COURT – VARIATIONS

Variation to allow the construction of an addition to the home, which encroaches into the 51.41-foot street side setback by 16.41 feet, leaving a 35-foot setback from the street, encroaches into the 4.9-foot side yard setback by 0.9 feet, leaving a 4-foot setback from the side lot line, and increases the hard-surface coverage by 504 square feet for a lot total of 62.3%, which exceeds the allowable 50% by 12.3%.

Representing the petitioner, Chris Russo of ALA Architects, proposed the allowance for construction of an addition at 779 Oak Court. He explained that the project would expand and modernize the existing 100-year old home while maintaining its architectural character. The addition would provide a more functional kitchen, an accessible first-floor bedroom and bathroom, a mudroom, and laundry facilities. The second floor would be reconfigured to provide more usable headspace. The structurally unsound enclosed porch would be rebuilt. Mr. Russo noted that because of the lot's narrow, lakefront configuration and nonconforming status, meeting UDO requirements was not possible. Mr. Russo stated that the owners preferred to keep an existing walkway and has reviewed staff recommendations and proposed the use of permeable pavers to help address drainage rather than removing the walkway.

Mr. Greenman opened the public comment portion of the hearing.

Ms. Betty Dietrich, 783 Oak court, who identified herself as a neighbor to the subject property, spoke in favor of the petition, stating that improvements to the property would have a positive impact on the surrounding properties and neighborhood overall.

With no other public wishing to speak, Mr. Greenman closed public comment portion of the hearing and asked for staff to present the staff report.

Ms. Maxwell presented the staff report, where there are three main variations that the petitioners are requesting. Two of those variations are in regard to setbacks and one in regard to hard surface coverage. She noted that the current impervious coverage is already nonconforming at 56%, compared to the UDO maximum of 50%. Ms. Maxwell explained that the proposed project would increase the coverage to 62.3%. Staff suggested ways to reduce the coverage by removing the gravel drive and replacing it with a permeable paver system. Also if the walkway along the east side of the lot was removed it would help reduce the coverage by approximately 5-7% to off-set the new addition. Ms. Maxwell further stated that many nearby Oak Court properties have lot coverage over the UDO range, due to the narrow lakefront configuration of lots in the area. The requested setback encroachments would not create sightline issues.

Mr. Skluzacek had asked if vehicles would be parked in front of the garage and expressed concern about street blockage; Mr. Russo responded that anyone would notice they would be blocking the entire lane if parking in front of the garage. There is a parking area next to the garage and parking would be manageable on the driveway. Mr. Skluzacek suggested that signage could be considered to prevent obstruction.

Ms. Mason congratulated the petitioners on the 100 years of their home, and appreciated their wants to keep character and design of the home as it stands today. Ms. Mason questioned if the owners were open to using permeable pavers in place of other coverage reduction measures. Mr. Russo confirmed their willingness, but stated they preferred to retain the walkway. He also did not recommend removing amenities from homes like the deck and patio.

Mr. Gronow appreciated how the homeowners are looking to maintain the character of the house, and advised petitioners to work with staff to reduce coverage percentage. He also asked whether lot coverage could be reduced in any other way and requested examples from nearby properties. Ms. Maxwell cited that some adjacent properties have coverage levels over the 50%. Jon Adee noted that they are essentially camping inside the home until they are able to complete the renovation. They hooked the downspouts from the roof into the drain system to help with water runoff. Mr. Russo said everyone wants to be on the lake. They need to work with the available stock of homes. These are narrow lots and homes started at cottages so making the homes bigger requires variations. They did not want to tear it down.

Ms. Dzielski commended the project for preserving the home's architectural integrity.

Mr. Smith stated that while he saw a hardship for the setbacks, he did not see one for increasing hard-surface coverage and recommended maintaining it at the current nonconforming level.

Mr. Greenman agreed, noting the importance of protecting the watershed and encouraging the petitioners to work with staff on drainage solutions within the coverage limit.

Ms. Adee said that all the homes in the area are over the coverage limits. Mr. Russo explained that they do not want to devalue the property. They need to remove the front deck it is in bad shape. Just the rebuilding of that area would require variations. They are not able to do anything with the home without some variations. They are already over the coverage limits. They can look at options to off-set the increase.

Mr. Smith made a motion to approve the requested variations with the following conditions, with modifications to staff conditions #2 and #4 to be amended to reflect coverage limitation:

1. Be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
    a. Application (Adee, received 06/21/25)
    b. Narrative (ALA, dated 07/23/25, received 06/12/25)
    c. Site Plan (Schmitt, dated 06/04/25, received 06/12/25)
    d. Architectural Plans (ALA, dated 06/10/25, received 06/12/25)
    e. Plat of Survey (Schmitt, dated 05/12/25, received 06/12/25)
2. An infiltration trench is requirement to accommodate the additional hard-surface coverage.
3. Work with staff to modify the plans to not increase the hard-surface coverage and maintain the 56% existing coverage.
4. No alterations to the front (lake side elevation) of the home or deck are permitted that encroach into the front yard setback.
5. The petitioner shall address all of the review comments and requirements of the Storm Water Consultant, Public Works and Engineering Department, and Community Development Department.

Ms. Mason seconded. On roll call, Members Dzielski, Gronow, Mason, Skluzacek, Smith and Greenman voted yes. The motion passed 6-0.

ALA Architects & Planners, Inc.
2600 Behan Road (at Route 176)
Crystal Lake, IL 60014
Phone: 815-788-9200
Fax: 815-788-9201

July 23, 2025

City of Crystal Lake
Community Development Department
100 West Woodstock Street
Crystal Lake, IL 60014

Variance Request For:
Adee Residence
779 Oak Court
Crystal Lake, IL 60014
ALA# 25072

We respectfully request the following zoning variations for the proposed building addition to the single-family residential property at 779 Oak Court.

Site Data:

Zoning: R-2
PIN: 19-06-176-009
Minimum Lot Area: 8,400 sf
Actual Lot Area: 5,316 sf
Minimum Lot Width: 70ft
Actual Lot Width: 40ft
Maximum Hard Surface Coverage: 50% of lot
Existing Hard Surface Coverage: 55.8% (5.8% over max. allowable)
Proposed Hard Surface Coverage: 62.3% (6.5% over current non-conformity)
Front/Lakeside Setback: 43.4ft
Streetside Setback: 51.41ft
Interior Side Yard Setback: 4.9ft
Combined Side Yards: 12.6ft

Requested Variances:

1. Streetside Setback: 16.41 ft
2. Interior Side Setback: 0.9 ft (no increase proposed to current non-conformity)
3. Hard Surface Area: 12.3% (increase of 6.5% to current non-conformity)

Unique Circumstances:
The Adee family loves their cottage on the lake and intends for it to be a legacy home that connects current and future generations. The proposed addition will help them achieve their goal in a multitude of ways. One of the main objectives is to make the home as accessible and inclusive as possible for the more senior members of the family. This work includes the removal of an existing addition on the streetside of the residence that is currently structurally unsound. Then, providing a first-floor bedroom to minimize the number of steps required to reach a bedroom, keeping the laundry nearby, and providing a usable mud room and accessible bath. Other renovations include the enlargement and reconfiguration of bathrooms and bedrooms on the second floor and enlarging the existing apartment style kitchen from the 1920s to a more functional layout that meets the needs of the family. Ultimately, the proposed

ALA Architects & Planners, Inc.
2600 Behan Road (at Route 176)
Crystal Lake, IL 60014
Phone: 815-788-9200
Fax: 815-788-9201

renovations seek to elevate the existing basic amenities to more modern and usable minimum standards that one would expect in a new home design. The proposed addition was designed as modestly as possible while still providing standard modern family and accessibility amenities as outlined above.

The preference of all parties was to design this addition without requesting variances. Unfortunately, the age and placement of the home, and the size of the lot have made this infeasible. The existing residence is built on a non-conforming lot in the R-2 zoning district. The home is older and was built and placed on the lot prior to the adoption of the current zoning ordinance. As a result, the existing side yard setback of the residence, at 4 feet, is non-conforming. However, the proposed addition was designed to match the width of the existing residence, so it does not increase the existing non-conformity. Every effort was made to keep the proposed addition as modest in size as possible, while still meeting the basic needs of the family. Because of the smaller lot size, the existing hard surface coverage is already over the maximum allowed. We are requesting an additional 6.5% of hard surface area coverage for the addition. The area that made the most sense for an addition was at the streetside, as opposed to a side or waterfront addition. Because this lot is smaller in area and is not as deep as many of the other lots on the block, a streetside variance of 16.41ft is requested.

Is the Hardship Self-Created?:
No, the side yard setback request is based on aligning the new addition with the existing width of the residence, which is non-conforming. The lot itself is also non-conforming to the minimum width & area requirements for the R-2 District, which leaves little recourse but to request variances for this modest addition.

Are Conditions Applicable to Other Properties in the Same Zoning Classification?:
All the lots on this block are non-conforming regarding the minimum width requirement. However, the areas of the lots on the lakeside of the block appear to vary greatly due to the shape of the lakeshore. This lot is one of the smallest in size which puts it at a disadvantage regarding maximum allowable hard surface coverage and minimum allowable streetside setback in comparison to other lots on the block.

Will the Variation Alter the Essential Character of the Locality?:
Many of the homes on this block are of a similar age and have been renovated or added onto over the years, in a similar fashion to the proposed scope of work, to meet the needs of their occupants. The proposed addition was designed to complement the aesthetics, height, and massing of the existing 1 ½ story residence and surrounding homes.

Would the Variation to Detrimental to the Public Welfare or Injurious to Other Properties?:
If granted, the proposed variations will not be detrimental to the public welfare or injurious to other properties. The addition is proposed at the streetside of the residence so that neighboring water views are not impacted. Regarding stormwater management, the homeowners have already contracted with Civil Engineers that will work with the City Engineer to design whatever stormwater solution is necessary to comply with the code and to leave their neighbors unaffected.

Will the Proposed Variation Impair Adequate Supply of Light or Air to Adjacent Properties, Diminish Property Values, Increase Congestion in Public Streets, Substantially Increase the Danger of Fire, or Endanger Public Safety?:
The size & massing of the proposed addition is very similar to adjacent properties and will not impair light or air to them. The renovation and addition should increase property values. The addition will not increase congestion in public streets, increase the danger of fire or endanger public safety.

Standard Soil Erosion and Sediment Control Notes

1. Control measures shall meet the minimum standards and specifications of the *Illinois Urban Manual* (www.aiswcd.org/IUM) unless stated otherwise.
2. Soil disturbance shall be conducted in such a manner as to minimize erosion. Areas of the development site that are not to be disturbed shall be protected from construction traffic or other disturbance until final stabilization is achieved.
3. Soil stabilization measures shall consider the time of year, development site conditions and the use of temporary or permanent measures.
4. Stabilization by seeding shall include topsoil placement and fertilization, as necessary.
5. Native seed mixtures shall include rapid-growing annual grasses or small grains to provide initial, temporary soil stabilization.
6. Offsite property shall be protected from erosion and sedimentation. Velocity dissipation devices shall be placed at concentrated discharge locations and along the length of any outfall channel, as necessary to prevent erosion.
7. Sediment control measures shall be installed prior to the disturbance of tributary areas.
8. Stabilization of disturbed areas shall be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the development site, or temporarily ceased on any portion of the development site and will not resume for a period exceeding 14 calendar days. Stabilization of disturbed areas shall be initiated within 1 working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible, but not later than 14 calendar days from the initiation of stabilization work in an area. Exceptions to these time frames are specified below:
   a. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable; and
   b. In areas where construction activity has temporarily ceased and will resume after 14 days, a temporary stabilization method may be used.
9. Disturbance of steep slopes shall be minimized. Areas or embankments having slopes steeper than 3:1 shall be stabilized with staked in place sod, erosion control blanket in combination with seeding, or an equivalent control measure.
10. Perimeter control measures shall be provided downslope and perpendicular to the flow of runoff from disturbed areas, where the tributary area is greater than 5,000 square feet, and where runoff will flow in a sheet flow manner. Perimeter erosion control shall also be provided at the base of soil stockpiles.
11. The stormwater management system shall be protected from erosion and sedimentation downslope from disturbed areas. Inlet protection that reduces sediment loading, while allowing runoff to enter the inlet shall be required for all storm sewers. Checkdams, or an equivalent control measure, shall be required for all channels. Filter fabric inlet protection and straw bale ditch checks are not acceptable control measures.
12. If dewatering services are used, discharges shall be routed through an effective sediment control measure (e.g., sediment trap or an equivalent control measure). The Enforcement Officer shall be notified prior to the commencement of dewatering activities.
13. All temporary soil erosion and sediment control measures shall be removed within 30 days after final stabilization of the development site is achieved or after the temporary measures are no longer necessary. Trapped sediment shall be removed and disturbed areas shall be permanently stabilized.
14. Stockpiled soil and materials shall be removed from flood hazard areas at the end of each work day. Soil and materials stockpiled in IWMC or buffer areas shall be placed on timber mats, or an equivalent control measure.
15. Effective control measures shall be utilized to minimize the discharge of pollutants from the development site. At a minimum, control measures shall be implemented in order to:
   a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash water; and
   b. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, vehicle fluids, sanitary waste, and other materials present on the development site to precipitation and to stormwater.
16. Adequate receptacles shall be provided for the depositing of all construction material debris generated during the development process. The applicant shall not cause or permit the dumping, depositing, dropping, throwing, discarding or leaving of construction material debris upon or into any development site, channel, or IWMC. The development site shall be maintained free of construction material debris.
17. The Enforcement Officer may require additional or alternate soil erosion and sediment control measures, based on development site specific considerations and the effectiveness of the installed control measures.

Standard Drain Tile Notes

1. Drain tiles disturbed during regulated development shall be reconnected by those responsible for their disturbance, unless the development plans specify abandonment of the drain tiles.
2. All abandoned drain tiles within disturbed areas shall be removed in their entirety.
3. Drain tiles within the disturbed area of a development site shall be replaced, bypassed around the development site or intercepted and connected to the storm water management system for the development site. The size of the replaced or bypassed drain tile shall be equivalent to the existing drain tile.

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A&G, B			*	*					
SODDING				**								
TEMPORARY SEEDING				*								
DORMANT SEEDING												

STANDARD LAWN MIXTURE
A (1) KENTUCKY BLUEGRASS 50 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE AND CREEPING RED FESCUE 20 LBS/ACRE.

SALT TOLERANT MIXTURE B
(1A) BLUE GRASS 30 LBS/ACRE PERENNIAL RYEGRASS 10 LBS/ACRE DAWSONS RED FESCUE 10 LBS ACRE SCALDIS HARD FESCUE 10 LBS/ACRE FULTS SALT GRASS 30 LBS/ACRE

LOW PROFILE NATIVE GRASS MIXTURE
C ANDROPOGON SCOPARIUS (LITTLE BLUE STEM) 5 LBS/ACRE BOUTELOVA CURTIPENDULA (SIDE OATS GRAMA) 5 LBS/ACRE ELYMUS CANADENENSIS (WILD RYE) 1 LBS/ACRE SPOROBOLUS HETEROLEPSIS (PRAIRIE DROPSEED) 0.5 LBS/ACRE ANNUAL RYE GRASS 25 LBS/ACRE OATS, SPRING 25 LBS/ACRE PERENNIAL RYE GRASS 15 LBS/ACRE

WETLAND GRASS AND SEDGE MIXTURE.
D (4#) ANNUAL RYE GRASS 25 LBS/ACRE OATS, SPRING 25 LBS/ACRE

E CEREAL RYE 90 LBS/ACRE, OR WHEAT 90 LBS/ACRE, OR PERENNIAL RYEGRASS 25 LBS/ACRE

G SOD

* IRRIGATION NEEDED DURING JUNE AND JULY

** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

( ) IDOT STANDARD

INSPECTION SCHEDULE:

1. SILT FENCE INSPECTION BEFORE ANY WORK BEGINS
2. INFILTRATION TRENCH WHEN IT IS DUG DOWN 1 FOOT INTO THE GRAVEL LAYER
3. INFILTRATION TRENCH WHEN THE CHAMBERS ARE INSTALLED (INCLUDING ANY DOWNSPOUT, SUMP PUMP, OR VERTICAL RISER CONNECTION TO THE TRENCH) AND THE FABRIC IS LINING THE TRENCH
4. THE TRENCH ONCE THE WASHED STONE IS INSTALLED AND FABRIC IS COVERING THE STONE
5. WHEN ALL THE WORK IS COMPLETED FOR FINAL INSPECTION. NEED TO HAVE AS-BUILT GRADING PLAN BEFORE THIS INSPECTION

GENERAL NOTES:

1. SILT FENCE TO BE INSTALLED ALONG THE LIMITS OF GRADING AND CONSTRUCTION. SILT FENCE MUST BE INSTALLED BEFORE ANY OTHER WORK CAN COMMENCE.
2. IF CONCRETE IS TO BE POURED ONSITE, A TEMPORARY CONCRETE WASHOUT MUST BE USED.
3. THE CLSO APPENDIX 2 STANDARD SOIL EROSION AND SEDIMENT CONTROL NOTES GOVERN THIS PLAN
4. EXISTING ASPHALT/CONCRETE/PAVERS THAT ARE TO BE TAKEN OUT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY
5. DO NOT STORE, STAGE, OR DUMP MATERIALS INTO THE STREET OR RIGHT-OF-WAY
6. DO NOT TRACK DEBRIS ONTO ROADWAY. IF DEBRIS IS TRACKED ONTO ROADWAY IT MUST BE CLEANED UP IMMEDIATELY
7. EXCESS SOIL TO BE REMOVED

LEGAL DISCRIPTION:

LOT 27 IN FIRST ADDITION TO CLOW'S CRYSTAL LAKE PARK, A SUBDIVISION OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 28TH, 1923 AS DOCUMENT NO. 58798, IN BOOK 4 OF PLATS, PAGE 83, IN MCHENRY COUNTY, ILLINOIS

SITE BENCHMARK:

FOUND 1/2" IRON PIPE @ NORTH-EAST CORNER OF PROPERTY
ELEV=895.82 (NAVD88)

TOPOGRAPHY:

TOPOGRAPHY TAKEN FROM ELEVATIONS SHOT BY SCHMITT ENGINEERING ON 05/23/2025

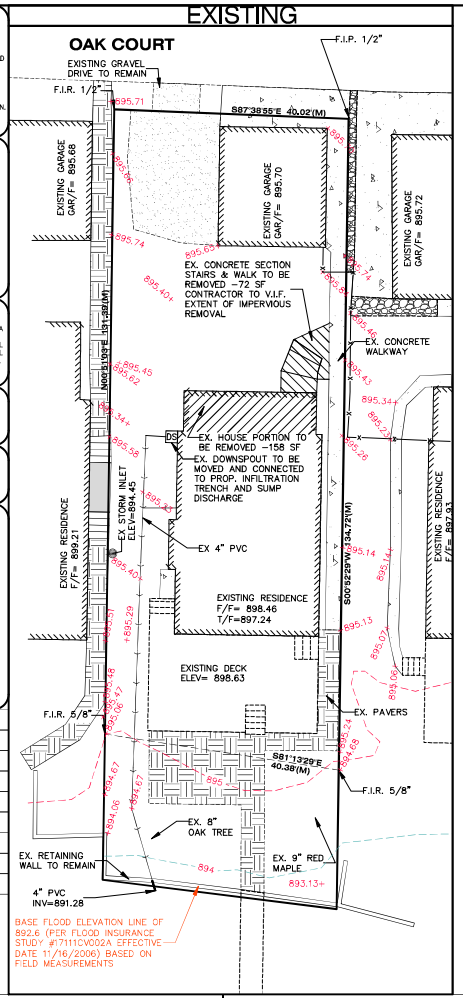
IMPERVIOUS AND DISTURBANCE AREAS DATA:

IMPERVIOUS TO REMAIN:	
RESIDENCE:	895 SQ.FT.
GARAGE:	372 SQ.FT.
DECK:	505 SQ.FT.
CONCRETE WALKWAY:	304 SQ.FT.
GRAVEL DRIVEWAY:	330 SQ.FT.
PAVERS:	402 SQ.FT.
TOTAL IMPERVIOUS TO REMAIN=	2,808 SQ.FT.
PROPOSED IMPERVIOUS	
RESIDENCE:	504 SQ.FT.
TOTAL PROP. IMPERVIOUS=	504 SQ.FT.
TOTAL LOT SIZE:	5,316± SQ.FT.
FINAL IMPERVIOUS:	3,312 SQ.FT.
FINAL IMPERVIOUS PERCENT:	62.3%
SOIL DISTURBANCE:	888 SQ.FT.

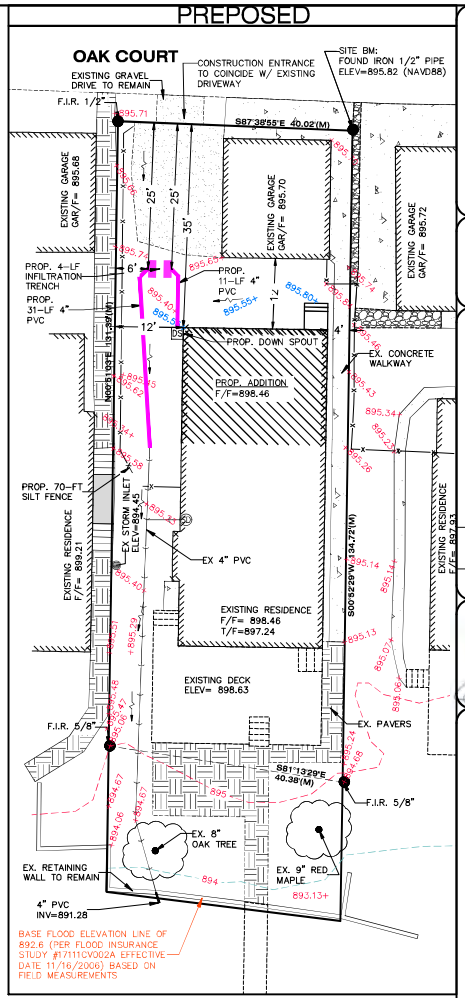
LEGEND

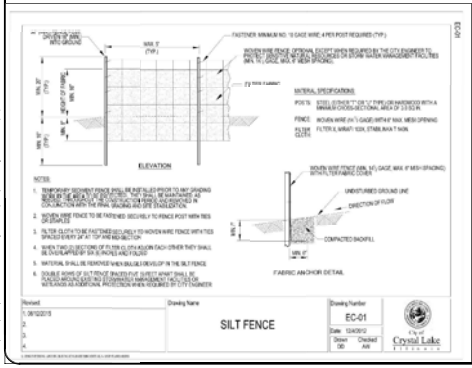
○	MONUMENT
—∿→	PROPOSED FLOW DIRECTION
+885.52	EXISTING GRADE
+885.8	PROPOSED GRADE
—x—	PROPOSED FENCE
DS	DOWNSPOUT
	IMPERVIOUS REMOVED
	IMPERVIOUS PROPOSED

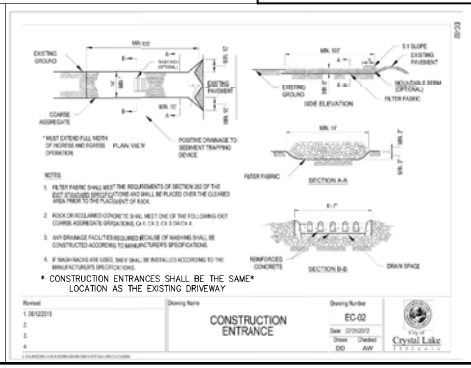
EXISTING

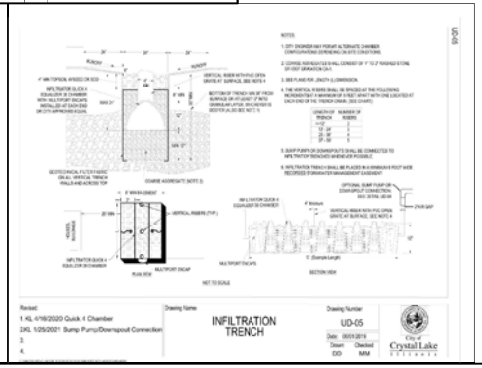


PREPOSED









GRAPHIC SCALE
0 10 15 20 30
(IN FEET)
1"=10 FT.

PLANS PREPARED FOR:
MARY & JERRY ADEE
799 OAK COURT CRYSTAL LAKE
JERRYADEE@GOGLOBAL.NET
847-702-9080

REVISIONS

DATE	DESCRIPTION

Permit Number HEALTH -

Permit Number PLANNING -

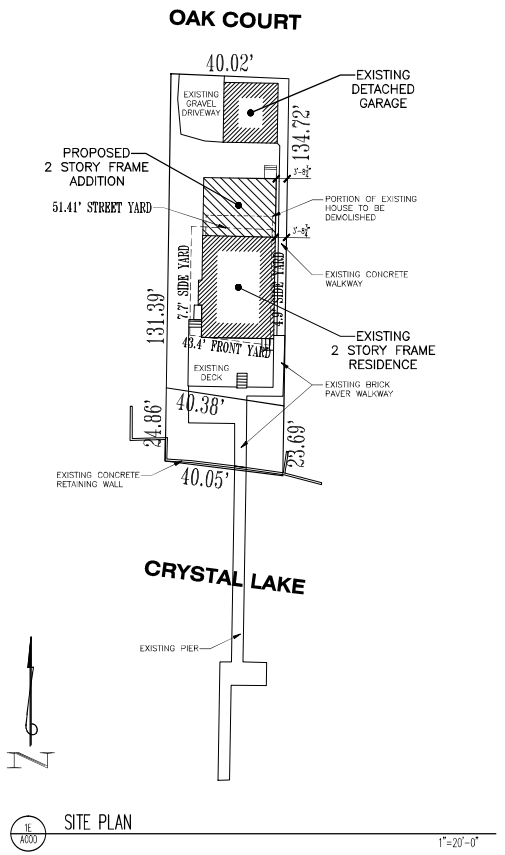
EXPIRES 11-30-2025

SITE AND DEMO PLAN
779 OAK COURT,
CRYSTAL LAKE, IL, 60014
P.I.N. NO.: 19-06-176-009

SCHMITT ENGINEERING
215 West Crystal Lake Road, Suite 2 Crystal Lake, Illinois 60014
815-893-1570
www.jdschmittengineering.com

Drawn By RJC
Checked By AMS
Date 06/04/2025
Scale 1" = 10 Ft.
Job Number 250318

ADEE RESIDENCE
779 OAK COURT
CRYSTAL LAKE, IL 60014



1E A000 SITE PLAN

1"=20'-0"

IECC – INTERNATIONAL ENERGY CONSERVATION CODE

—NOTE TO PLAN REVIEWERS, OFFICIALS & CONTRACTORS:—

- THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE TO THE CURRENT EDITION OF INTERNATIONAL ENERGY CONSERVATION CODE AS AMENDED BY THE STATE OF ILLINOIS AND MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF SAID CODE.
- THE ARCHITECT HAS CHOSEN TO DEMONSTRATE COMPLIANCE OF MEETING THE PROVISIONS OF THE ILLINOIS ENERGY CONSERVATION CODE COVERED BY 71 ILL ADM. CODE 600 SUPPART D BY SUBMITTING, AS REQUIRED BY SECTION 105.5 OPTION 2, THE SEAL OF THE THE ARCHITECT/ENGINEER AS REQUIRED BY SECTION 14 OF THE ILLINOIS ARCHITECTURAL PRACTICE [225 ILCS 305].
- PRESCRIPTIVE METHOD FOR COMPLIANCE, AS SPECIFIED BY THE CODE, 401.2.1 & 401.2.6, COMPLIANCE IS DEMONSTRATED BY MEETING THE REQUIREMENTS OF SECTIONS 402 TO 404 & 408.2.2
- THESE PLANS STATE CERTAIN APPLICABLE ASPECTS OF THE ENERGY CODE AND ARE NOT INTENDED TO RESTATE THE ENTIRE CODE OR ACT AS A REPLACEMENT TO THE CODE. ALL CONTRACTORS ARE TO FAMILIARIZE THEMSELVES WITH THE CODE AND FOLLOW THOSE REQUIREMENTS THAT RELATE TO THEIR PARTICULAR TRADE AND ARE RESPONSIBLE FOR SAME. CONTRACTORS SHOULD ALSO VERIFY WHICH EDITION/YEAR ENERGY CODE SHALL BE FOLLOWED BASED ON THE MUNICIPALITY IN WHICH THE PROJECT IS LOCATED IN.

*** IF YOU DONT READ ANY OTHER NOTES – READ THIS ONE ***

NOTE TO BIDDERS & CONTRACTORS:

THESE PLANS HAVE BEEN PREPARED BASED ON THE DOCUMENTATION OF AVAILABLE CODES AND ORDINANCES WHICH ARE OPEN TO APPROVAL AND INTERPRETATION BY THE GOVERNING BODY AUTHORIZED TO ISSUE A BUILDING PERMIT. THE REQUIREMENTS AND BUILDING SPECIFICATIONS ARE SUBJECT TO CHANGE BASED ON THIS APPROVAL AND MAY AFFECT THE COST OF THE PROJECT. OR SUCCESSFUL COMPLETION. BIDDERS ARE RESPONSIBLE FOR NOTIFYING THE OWNER(S) OR FINANCIAL INSTITUTION RESPONSIBLE FOR FUNDING THE PROJECT FOR APPROVAL PRIOR TO BEGINNING WORK.

THIS ARCHITECTURAL DOCUMENTATION IS INTENDED TO GIVE AN OVERALL SCOPE AND DESCRIPTION OF WORK, ALONG WITH GENERAL SPECIFICATIONS FOR CONSTRUCTION. NOT ALL INFORMATION REQUIRED OR PERTINENT TO THE PROJECT REQUIRED FOR SUCCESSFUL PRICING OR COMPLETION IS INCLUDED. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO FAMILIARIZE THEMSELVES WITH ALL CODES PERTAINING TO THEIR DISCIPLINES AND BE RESPONSIBLE FOR THE SUCCESSFUL COMPLETION OF THE PROJECT.

PLAN & ELEVATION SYMBOLS

5S 5 SHELVES — 15R 1 SHELF & 1 ROD — SPR SPRINKLER HEAD
GAS HOOKUP — WATER HOOKUP — FPH FROST PROOF HOSE BIBB
SHOWER HEAD FAUCET — SHOWER RAIN HEAD — FLOOR DRAIN
PRE-FAB FIREPLACE FLUE — MASONRY FIREPLACE FLUE — FD@48 FD@48
CEILING DETAIL DIAGRAM — WORK POINT — ROOF PITCH
SECTION/ NEW MARKER — ELEVATION MARKER — REVISION MARKER
V.I.F. VERIFY IN FIELD
V.W.O. VERIFY WITH OWNER

FACE BRICK — HORIZONTAL SIDING — PLYWOOD & BATTEN SIDING — ASPHALT SHINGLES ROOFING
STONE — SHAKE SIDING — STAMP SHAKE METAL ROOFING — CONCRETE
FIELD STONE — STUCCO E.I.F.S. — METAL ROOFING — GRAVEL

ELECTRICAL SYMBOLS:

SINGLE OUTLET (1) — SWITCH — TELEVISION JACK
DUPLEX OUTLET (2) — DOOR ACTIVATED SWITCH — TELEPHONE JACK
QUAD. OUTLET (4) — WORK ACTIVATED SWITCH — HDMI JACK
SWITCHED DUPLEX OUTLET (2) — THERMOSTAT CONTROLS — 110V SMOKE DETECTOR HARD W/ BATTERY BACKUP, RUN ON DEDICATED CIRCUIT
CEILING MOUNTED LIGHT FIXTURE — EXHAUST FAN, VENTED TO EXTERIOR
RECESSED CAN LIGHT — EXHAUST FAN/LIGHT, VENTED TO EXTERIOR — SD/CO 110V SMOKE & CARBON MONOXIDE DETECTOR COMBO HARD W/ BATTERY BACKUP, RUN ON DEDICATED CIRCUIT
DIRECTIONAL RECESSED CAN LT. — FLOOD LIGHT W/ MOTION DETECTOR
WALL MOUNTED LIGHT FIXTURE — CEILING MOUNTED FAN/LIGHT
RECESSED WATER PROOF LED CAN LIGHT EXPOSED
EXTERIOR LAMP W/ POST — P.C. = PULL CHAIN LIGHT — GFI = GROUND FAULT CIRCUIT INTERRUPTER
FLUORESCENT LIGHT FIXTURE — W.P. = WATER PROOF

WALL TYPES

NEW FRAME WALL — NEW FOUNDATION WALL & FOOTING
DRYWALL, ARCHED OR CASED OPENING — DEPRESSED FOUNDATION WALL
BEARING WALL ABOVE — TR. SILL PLATE @ FDTN. WALL

NOTE TO CONTRACTORS

- ALL CONTRACTORS PRIOR TO CONSTRUCTION ARE TO FAMILIARIZE THEMSELVES WITH THE PLANS AND EXISTING CONDITIONS OF THE PROJECT. ALL CONTRACTORS ARE RESPONSIBLE FOR PERFORMING WITHIN INDUSTRY STANDARDS AND TO COMPLY WITH ALL APPLICABLE CODES. NOTIFY ARCHITECT OF ANY CONDITIONS OR DISCREPANCIES ON PLANS WHICH MAY INTERFERE WITH SUCCESSFUL COMPLETION OF THE PROJECT, PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR DEMOLITION.
- ALL NOTES SHOWN ARE TYPICAL, AND SOME MAY NOT APPLY TO THE SCOPE IS NOW.

PLUMBING NOTES:

- PROVIDE GAS SHUTOFF VALVES TO ALL GAS APPLIANCES AND FIREPLACES.
- ALL FRAMING DRILLED FOR PLUMBING RUNS TO SMALLER HOLES TO BE IN A 2 X 6 MIN. STUD WALL.
- ALL WATER LINES TO A SECOND FLOOR TO HAVE AIR CHAMBERS.
- ABOVE GROUND WASTE – SCHEDULE 40 PVC, CLOSE SOCKET
- BELOW GROUND WASTE – SCH 40 PVC OR CAST IRON
- ABOVE GROUND WATER – TYPE L COPPER, NO LEAD SOLDER
- BELOW GROUND WATER – TYPE K COPPER
- CLOSED-POWER VENT STACKS TEST REQUIRED ON ALL PVC PIPING.
- 25LB. DW OR MASS-FLOW STACKS TEST REQUIRED ON WATER PIPING.
- UNDERGROUND SANITARY SHALL BE 4" MIN.

HVAC NOTES:

- HVAC CONTRACTOR TO VERIFY NEW & EXISTING HVAC SYSTEMS ACTIVITY.
- HVAC CONTRACTOR TO VERIFY HVAC SYSTEMS ARE CAPABLE OF PROVIDING ADEQUATE AIR FLOW TO NEW ADDITION. UPDATE, REPLACE, ADD TO OR MODIFY AS REQ'D.
- FOR ANY PROPOSED ATTIC FURNACES, PROVIDE A SMOKE/CO DETECTOR, PROVIDE FLOOR DRAIN WITH P-TRAP & AUTO SHUT OFF VALVE PER DRAIN BACK-OFF, ALONG WITH ANY OTHER REQUIREMENTS WHICH MAY BE NEEDED TO SATISFY LOCAL & NATIONAL BUILDING CODES.
- DUCT JOINTS AND SEAMS SHALL BE MADE SUBSTANTIALLY AIR TIGHT.
- DUCTS SHALL BE SUPPORTED W/ 16-12" HANGERS AND
- PROVIDE MIN. 30" DEEP X 30" WIDE X 78" HIGH CLEAR WORK AREA IN FRONT OF FURNACE SERVICE PANEL.

FINISHES:

- ALL INTERIOR AND EXTERIOR FINISHES INCLUDING, BUT NOT LIMITED TO MOLDING, DOORS, WINDOWS, SIDING, ROOFING, ETC. ARE TO MATCH EXISTING UNLESS OTHERWISE NOTED.

DESIGN LOADING VALUES:

ROOF	30 PSF LIVE LOAD (SNOW)	WALLS	20 PSF MWD FOR 0-29 FT. HEIGHT
CEILING	30 PSF LIVE LOAD		25 PSF MWD FOR 29-34 FT. HEIGHT
FLOOR	60 PSF LIVE FOR EXTERIOR BALCONY		30 PSF MWD FOR 30 FT. AND ABOVE
	40 PSF LIVE FOR FLOORS, DECKS, STAIRS	SOIL	3000 PSF ASSUMED MINIMUM OWNER/CONTRACTOR RESPONSIBLE TO VERIFY

CONCRETE/MASONRY NOTES:

- SEE FOUNDATION PLAN AND SECTIONS FOR HEIGHT OF FOUNDATION WALLS
- FOUNDATION REINFORCING TO BE GRADE 60, (#) CONTINUOUS BARS 36 DIAMETERS.
- ALL FOUNDATION WALLS WITH FULLS MASONRY VENEER ABOVE TO BE A MINIMUM OF 10" THICK
- ALL EXTERIOR WALLS(IST ON ENGISH BASEMENT FRAME WALLS 4" CONC W/ 3/4" SHEATHING
- STRENGTH OF CONCRETE AFTER 28 DAYS TO BE 3000 PSI FOR CONCRETE WALLS AND 3500 PSI FOR CONCRETE FLAT WORK AND EXTERIOR CONDITIONS.
- ALL PORCHES, STEPS AND GARAGE FLOOR SLABS SHALL BE A MIN. OF 3500 PSI AND BETWEEN 5% & 7% AIR ENTRAINED.
- FOUNDATION HEIGHT TO BE AT SUCH A LEVEL SO NEW TOP OF FINISHED FLOOR MATCHES EXISTING TOP OF FINISHED FLOOR, UNLESS OTHERWISE NOTED.
- PROVIDE SAW CUTS IN EXISTING FOUNDATION TO PROVIDE FOR ADEQUATE ACCESS EITHER TO NEW CRAWL SPACE OR BASEMENT, PER PLANS AND LOCAL CODES.
- PROVIDE SAW CUTS IN EXISTING FOUNDATION FOR HVAC ACCESS TO NEW ADDITION AS REQ'D.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE VERIFICATION OF EXISTING STRENGTH AND DEPTH OF EXISTING FOUNDATION AND FOOTING.
- MASONRY MORTAR TO BE TYPE M.

WINDOW NOTES:

- VERIFY ALL NEW WINDOW SIZES IN FIELD PRIOR TO PURCHASE.
- NEW WINDOWS TO MATCH EXISTING WINDOW TYPE & STYLE, UNLESS OTHERWISE NOTED.
- TOP OF WINDOWS IN REMODELED AREAS OF ADDITIONS TO MATCH EXISTING.
- FOR BASEMENTS, TOP OF WINDOWS @ 6'-8" (80") ABOVE FLOOR SLAB, UNLESS OTHERWISE NOTED.
- FOR 10'-0" PLATES, TOP OF WINDOWS @ 10'0" ABOVE SUB-FLOOR, UNLESS OTHERWISE NOTED.
- FOR 9'-0" PLATES, TOP OF WINDOWS @ 9'0" ABOVE SUB-FLOOR, UNLESS OTHERWISE NOTED.
- FOR 8'-0" PLATES, TOP OF WINDOWS @ 8'0" ABOVE SUB-FLOOR, UNLESS OTHERWISE NOTED
- ALL WINDOWS ARE DESIGNATED IN ROUGH OPENING, SHOWN IN FEET AND INCHES
- EXAMPLE: 2555 = 2'-5" X 5'-5" TO BE MATCH WITH 2'-0" EXISTING.
- PROVIDE (2) 2 X 12 HEADERS ABOVE ALL NEW WINDOWS AND OPENINGS UNLESS OTHERWISE NOTED.
- VERIFY ALL EXISTING HEADERS WHICH BEARING WILL BE INCREASED AS A RESULT OF THE REMODELING TO BE MIN. (2) 2 X 12 UNLESS OTHERWISE NOTED.
- PROVIDE TEMPERED SAFETY GLAZING IN ALL NEW WINDOWS WITHIN 24" OF ANY DOOR, WITHIN 18" OF FLOOR, IN TUB & SHOWER ENCLOSURES, & IN SIMILAR WALLS.
- PROVIDE WINDOW GUARDS THAT COMPLY WITH ASTM F2006 OR F2090 WHEN NEW WINDOW SILLS ARE LESS THAN 24" ABOVE FINISHED FLOOR.
- ALL NEW FENESTRATIONS SHALL HAVE A MAXIMUM U-FACTOR AS FOLLOWS:
  - WINDOWS & DOORS =(0.30), SKYLIGHTS =(0.52)
- WINDOW & DOOR TAGS: FIXED WINDOW =(F), EGRESS WINDOW = (E), TEMPERED GLASS = (T)

STRUCTURAL NOTES:

- PROVIDE DOUBLE JOISTS UNDER ALL BEARING PARALLEL PARTITIONS, KITCHEN ISLANDS & POINT LOADS.
- ALL INTERIOR PARTITIONS 3½" (2 X 4 STUD) UNLESS OTHERWISE NOTED.
- ALL EXTERIOR WALLS 6¾" (2 X 4 STUD W/ 1" SHEATHING).
- ALL EXTERIOR FRAME WALLS W/ MASONRY VENEER = 9½" (2 X 4 STUDS W/ 1" SHEATHING + 1" AIR SPACE + 4" MASONRY VENEER).
- ALL EXTERIOR WALLS 6" (2 X 6 STUDS W/ ½" SHEATHING).
- ALL EXTERIOR FRAME WALLS W/ MASONRY VENEER = 11" (2 X 6 STUDS W/ ½" SHEATHING + 1" AIR SPACE + 4" MASONRY VENEER).
- ALL EXTERIOR DIMENSIONS ARE SHAPED TO EXTERIOR OF WALL SHEATHING OR FULL MASONRY VENEER & ALSO CONCIDES WITH EXTERIOR OF FOUNDATION CODE DIMENSIONS ARE NEVER SHAPED TO THIN-CUT MASONRY VENEERS, THEY ARE DEPICTED AS A TYPE OF EXTERIOR SIDING/CLADDING.
- STEEL TO BE A-36 & STRUCTURAL STEEL BOLTS TO BE A-325
- PROVIDE (3" X 3" X ¼") ST. ANGLE L.L.V. ABOVE OPENINGS UP TO 6'-0" WIDE W/ MASONRY VENEER ABOVE.
- PROVIDE (5" X 3½" X ¼") ST. ANGLE L.L.V. ABOVE OPENINGS FROM 9'-0" TO 14'-0" WIDE W/ MASONRY VENEER ABOVE.
- PROVIDE (7" X 4" X ⅝") ST. ANGLE L.L.V. ABOVE 14'-0" & 16'-0" WIDE OVERHEAD DOORS W/ UP TO 2' OF MASONRY VENEER ABOVE.
- PROVIDE (8" X 4" X ⅝") ST. ANGLE L.L.V. ABOVE 16'-0" & 18'-0" WIDE OVERHEAD DOORS W/ MORE THAN 2' OF MASONRY VENEER ABOVE.
- STEEL FABRICATOR SHALL PROVIDE ALL MISCELLANEOUS CONNECTORS AND SHIMS FOR A COMPLETE INSTALLATION.
- STEEL FLITCH PLATE BEAMS TO BE CONNECTED WITH ½" BOLTS @ 32" O.C. AND (2) @ EACH END.
- ALL STEEL BEAMS, UNTELS & COLUMN PLATES SHALL BE SHOP PRIMED.
- WALLS SHALL BE BRACED AT EACH END AND 25' O.C. MAX.
- ALL JOISTS, STUDS & RAFTERS TO BE SPF #1/#2 (CANADIAN) UNLESS OTHERWISE NOTED.
- ALL HEADERS TO BE (2) 2 X 12 SPF #1/#2 (CANADIAN) UNLESS OTHERWISE NOTED.
- THE DIAMETER OF HOLES BORED INTO SOLID SAWN MEMBERS SHALL NOT EXCEED ⅓ THE DEPTH OF THE MEMBER AND SHALL NOT BE CLOSER THAN 2" FROM THE TOP OR BOTTOM OF THE MEMBER OR TO ANY OTHER HOLE.
- THE DIAMETER OF HOLES BORED INTO PRE-ENGINEERED FRAMING MEMBERS SHALL FOLLOW MFG APPROVED SPECIFICATIONS.
- PROVIDE PRE-ENGINEERED FLOOR JOIST MANUFACTURER'S INSTALLATION INSTRUCTIONS ON THE JOBSITE AT THE TIME OF INSPECTIONS.
- PRE-ENGINEERED FLOOR JOIST TO BE BY "BUILDIST" MANUFACTURER OR EQUIVALENT PER MANUFACTURER'S RECOMMENDATIONS.
- PRE-ENGINEERED FLOOR JOIST SUPPLIER SHALL PROVIDE JOIST LAYOUT FROM MANUFACTURER PRIOR TO FRAMING.
- ■ = (2) 2X STUDS IN INTERIOR PARTITIONS W/ DBL. JST. BELOW UNLESS OTHERWISE NOTED.
- ■ = (2) 2X STUDS IN EXTERIOR WALLS, UNLESS OTHERWISE NOTED
- □ = POINT LOAD FROM ABOVE WITH DOUBLE JOIST BELOW, UNLESS OTHERWISE NOTED.
- ALL EXTERIOR WALLS OVER 10'-0" TALL TO BE 2X6 @16" O.C. STUD WALLS.
- ADD 2 X HORIZONTAL BLOCKING, SAME WIDTH AS STUDS, BETWEEN STUDS IN EXTERIOR WALLS OVER 8'-0" IN HEIGHT, FASTEN EXTERIOR SHEATHING TO BLOCKING AND TO STUDS.
- HALF WALLS TO BE MIN. 36" TALL, UNLESS OTHERWISE NOTED.
- FIRESTOPPING SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:
  - CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING STAGGERED OR PARALLEL ROWS OF STUDS, VERT. AT CEILING AND FLOOR LEVELS AND HORZ. AT 10'-0" INTERVALS.
  - ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
  - CONCEALED SPACES BETWEEN STAIR STRINGERS AT TOP AND BOTTOM OF THE RUN.
  - OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILINGS AND FLOOR LEVEL WITH NONCOMBUSTIBLE MATERIALS.

ELECTRICAL NOTES:

- WHEN REMODELING OR ADDING A KITCHEN, LAUNDRY ROOM OR GARAGE, THE FOLLOWING NOTES APPLY:
  - ALL OUTLETS ABOVE KITCHEN COUNTERTOP TO BE GFI @ MAXIMUM 48" O.C.
  - ALL OUTLETS WITHIN 72" OF ANY SINK OR WATER FEATURE TO BE GFI.
  - ALL OUTLETS IN GARAGE TO BE GFI.
- ALL EXISTING ELECTRICAL COMPONENTS WHICH ARE EFFECTED BY THE REMODELING OR ADDITION ARE TO BE ALTERED, UPDATED, MOVED OR MODIFIED AS NEED TO CONFORM TO CURRENT LOCAL AND NATIONAL ELECTRICAL CODES.
- WHEN MODIFYING AN EXISTING RESIDENCE (ALTERATIONS, REPAIRS OR MODIFICATIONS) THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE & CARBON MONOXIDE DETECTORS PER LOCAL CODE & LOCATED AS REQUIRED FOR A NEW DWELLING.
  - (1) COMBO. SMOKE/CARBON MONOXIDE DETECTOR @ EACH FLOOR LEVEL
  - (1) SMOKE DETECTOR IN EACH BEDROOM
  - (1) COMBO. SMOKE/CARBON MONOXIDE DETECTOR WITHIN 15'-0" OF EACH BEDROOM DOOR/ENTRANCE.
- ALL TYPICAL ROOM OUTLETS TO BE SPACED MAX. 12'-0" APART, UNLESS OTHERWISE NOTED.
- ALWAYS HAVE NO POINT ALONG ANY WALL 2'-0" LONG OR LONGER IN ANY HABITABLE ROOM TO BE MORE THAN 6'-0" FROM AN OUTLET.
- ALL ELECTRICAL CONDUCTORS ARE TO BE SOLID COPPER IN ELECTRICAL METALLIC TUBING.
- ALL OUTLETS SHALL BE ARC-FAULT PROTECTED.
- ALL 15 & 20 AMP OUTLETS SHALL BE TAMPER RESISTANT.
- ALL CEILING OUTLET ELECTRICAL BOXES SHALL BE CAPABLE OF SUPPORTING A CEILING FAN.
- RECESSED INCANDESCENT OR SURFACE MOUNTED FLUORESCENT LIGHT FIXTURES IN CLOSETS SHALL BE LOCATED A MIN. 6" X 6" IN FRONT OF THE TOP SHELF AND SURFACE MOUNTED INCANDESCENT FIXTURES IN WALK-IN CLOSETS SHALL BE AT LEAST 12" IN FRONT OF TOP SHELF AND SHALL BE FULLY ENCLOSED WITH A GLOBE. SURFACE MOUNTED INCANDESCENT LIGHT FIXTURES ARE NOT PERMITTED IN CLOSETS OTHER THAN WALK-IN.
- PROVIDE SEPARATE 20 AMP CIRCUITS FOR KITCHEN REFRIGERATORS, MICROWAVES, GARBAGE DISPOSALS & DISHWASHERS.
- PROVIDE SEPARATE LOCAL DISCONNECTS FOR KITCHEN GARBAGE DISPOSALS & DISHWASHER.
- PROVIDE MIN. 30" DEEP X 30" WIDE X 78" HIGH CLEAR WORK AREA IN FRONT OF ELECTRICAL PANEL.
- PROVIDE 200 AMP ELECTRICAL SERVICE FOR BUILDINGS UP TO 6,000 SF.
- PROVIDE 400 AMP ELECTRICAL SERVICE FOR BUILDINGS OVER 6,000 SF.

CODE CONFORMANCE

THE DRAWINGS AND RELATED CONSTRUCTION TO CONFORM WITH THE FOLLOWING

2018 INTERNATIONAL RESIDENTIAL CODE	2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE	2000 NFPA LIFE SAFETY CODE
2018 INTERNATIONAL FUEL GAS CODE	2018 ILLINOIS ILLINOIS ACCESSIBILITY CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE	
2018 INTERNATIONAL FIRE CODE	
2017 NATIONAL ELECTRIC CODE	
2014 ILLINOIS PLUMBING CODE	
2018 INTERNATIONAL EXISTING BUILDING CODE	
2018 INTERNATIONAL PROPERTY MAINTENANCE CODE	
CITY OF CRYSTAL LAKE CODE OF ORDINANCES	

DRAWING INDEX

A000 SITE PLAN,
DRAWING INDEX,
GENERAL NOTES
A010 BASEMENT DEMOLITION PLAN
FIRST FLOOR DEMOLITION PLAN
SECOND FLOOR DEMOLITION PLAN

A101 FIRST FLOOR PLAN
A102 SECOND FLOOR PLAN
A200 EXISTING REAR/ STREET SIDE ELEVATION,
REAR/ STREET SIDE ELEVATION

PRELIMINARY NOT FOR CONSTRUCTION OR PERMIT SUBMITTAL

COPYRIGHT AS DATED ©
A.L.A Architects & Planners, Inc.

TEAR-OFF SCALE FOR USE ON DRAWINGS WITH SCALE 1/4"=1'-0"

DESIGN STAGE
AIA D/C =
PRELIMINARY DESIGN
DESIGN DEVELOPMENT
RELEASE FOR BID
PERMIT
RELEASE FOR PERMIT
REVISION

REVISIONS
1 15-12-15 1/8"=1'-0" GM

Architects & Planners, Inc.
IL Telephone: 815-788-9200 WI Telephone: 262-539-0822
2340 Dakota Road at Rt. 176 — 68 W. Main St.
Crystal Lake, IL 60014 — Lake Geneva, WI 53147
40 Crystal St. — 1700 E. Rentor Ave.
Crys, IL 60014 — Waukesha, WI 53186

ADEE RESIDENCE
779 OAK COURT
CRYSTAL LAKE, IL 60014

SITE PLAN
DRAWING INDEX
GENERAL NOTES

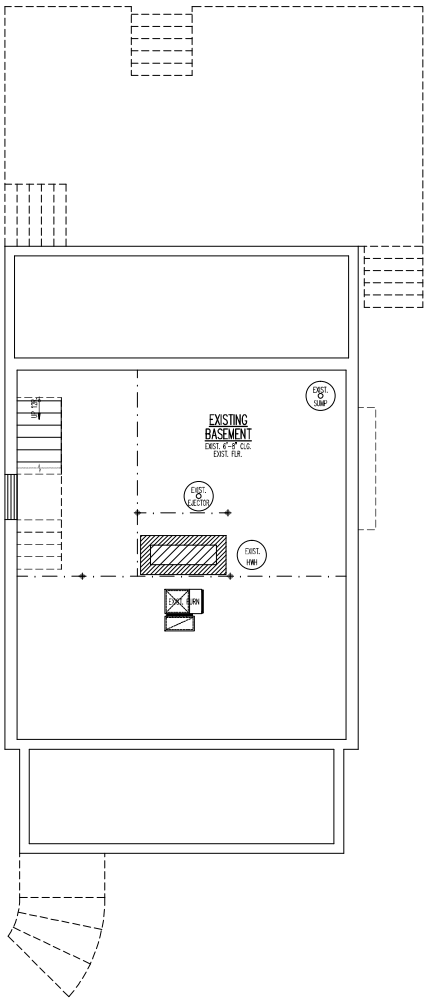
PRELIMINARY

Job Number: 25072

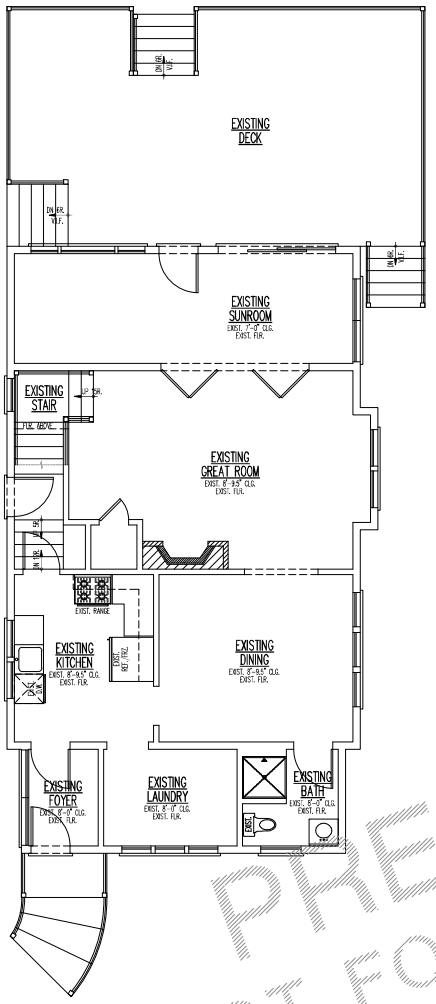
Sheet Number: A000

File Name: A000

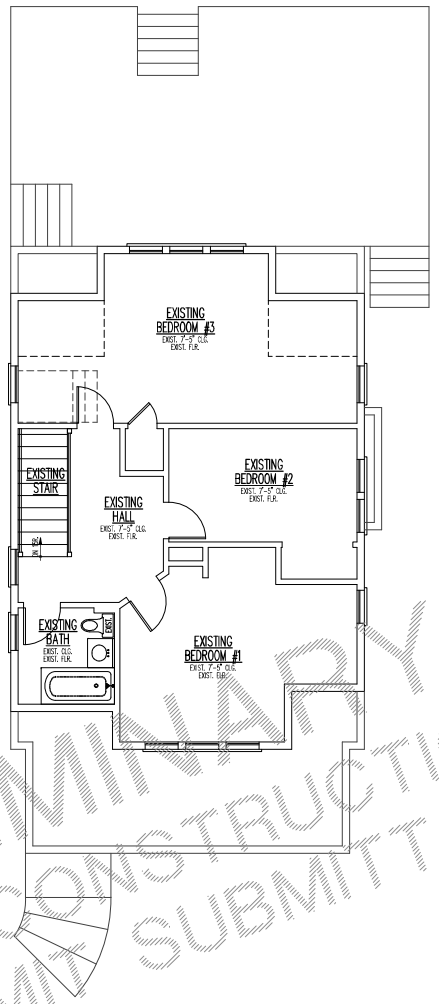




2E / A010 BASEMENT DEMOLITION PLAN
1/4"=1'-0"



4E / A010 FIRST FLOOR DEMOLITION PLAN
1/4"=1'-0"



6S / A010 SECOND FLOOR DEMOLITION PLAN
1/4"=1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION
OR PERMIT SUBMITTAL

Architects & Planners, Inc.
IL Telephone: 815-459-2050 WI Telephone: 262-245-0405
2600 Reliant Road at Rt. 176, Crystal Lake, IL 60014
98 W. Main St., Lake Geneva, WI 53147
40 Crystal St., Cary, IL 60013
1700 E. Racine Ave., Waukesha, WI 53186

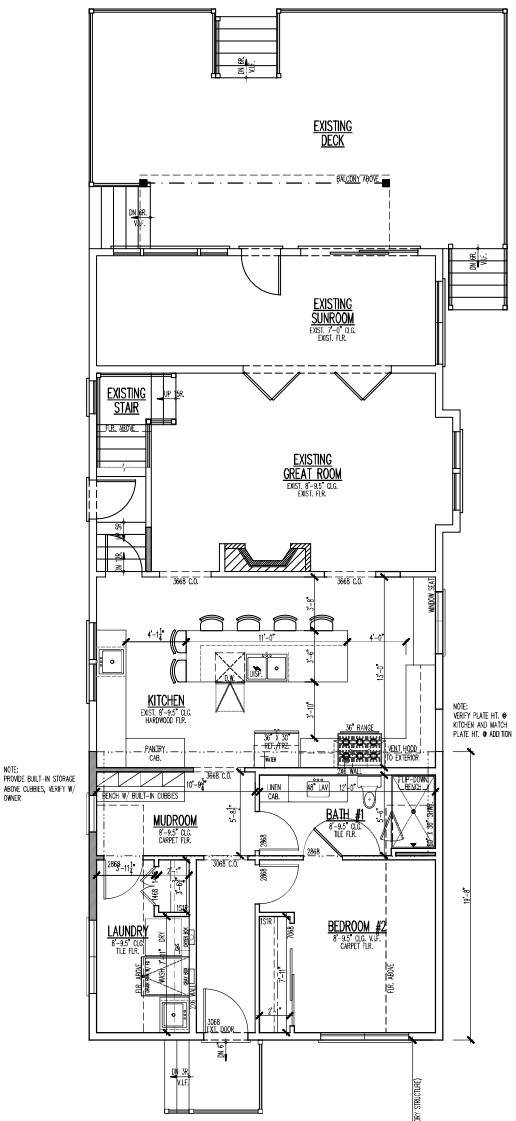
ADER RESIDENCE
779 OAK COURT
CRYSTAL LAKE, IL 60014

BASEMENT DEMOLITION PLAN
FIRST FLOOR DEMOLITION PLAN
SECOND FLOOR DEMOLITION PLAN

PRELIMINARY

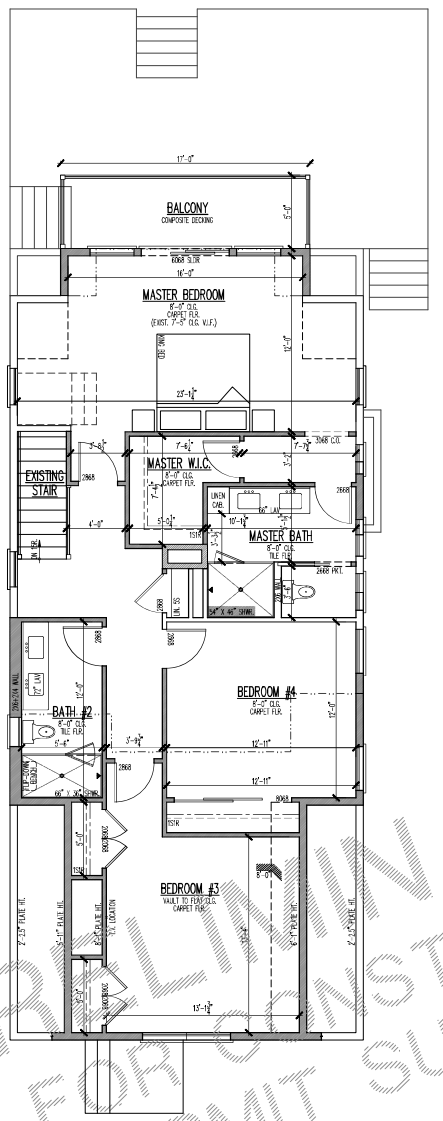
Job Number: 25072
Sheet Number: A010
File Name: LA10DDT060

COPYRIGHT AS DATED ©
A.L.A. Architects & Planners, Inc.



2E / A101 FIRST FLOOR PLAN

1/4"=1'-0"



5E / A101 SECOND FLOOR PLAN

1/4"=1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION
OR PERMIT SUBMITTAL

ALA SQUARE FOOTAGE	
EXISTING FIRST FLOOR	993.4
EXISTING SECOND FLOOR	721.8
EXISTING RESIDENCE TOTAL	1715.2
EXISTING GARAGE TOTAL	371.5
PROPOSED FIRST FLOOR	1310.5
PROPOSED SECOND FLOOR	1143.3
PROPOSED RESIDENCE TOTAL	2453.8

BUILDING LOT COVERAGE	
AREA OF LOT	5,316 S.F.
ZONING DISTRICT	R-2
MAXIMUM LOT COVERAGE	40%
ALLOWABLE LOT COVERAGE	2,126.4 S.F.
PROPOSED LOT COVERAGE	
FIRST FLOOR FOOTPRINT	+1310.5 S.F.
DETACHED GARAGE FOOTPRINT	+371.5 S.F.
TOTAL BLDG. LOT COVERAGE	1,682.0 S.F.

FLOOR AREA RATIO	
AREA OF LOT	5,316 S.F.
ZONING DISTRICT	R-2
MAXIMUM F.A.R.	80%
ALLOWABLE FLOOR AREA	4,252.8 S.F.
PROPOSED FLOOR AREA	
FIRST FLOOR	+1310.5 S.F.
GARAGE	+371.5 S.F.
SECOND FLOOR	+1143.3 S.F.
TOTAL FLOOR AREA	2,825.3 S.F.

COPYRIGHT AS DATED ©
A.L.A. Architects & Planners, Inc.

REVISIONS
1 10-9-25 T/A & DK-12-25 CITY
DESIGN REVIEW
A.L.A. PRELIMINARY DESIGN
PRELIMINARY DESIGN
PRELIMINARY DESIGN
DESIGN APPROVED
PLAN REVIEW
FINAL REVIEW
RELEASED FOR PERMIT
ADDENDUM

ADEE RESIDENCE
79 OAK COURT
ST. CHARLES, IL 60174

PRELIMINARY

FIRST FLOOR PLAN
SECOND FLOOR PLAN

Architects & Planners, Inc.
IL Telephone: 815.568.2000 WI Telephone: 262.842.4002
2600 Belvar Road at Rt. 176
Crystal Lake, IL 60014
99 W. Main St.
Lake Geneva, WI 53147
1700 E. Racine Ave.
Waukesha, WI 53186
40 Crystal St.
Cary, IL 60013

Job Number: 25072
Sheet Number: A101
File Name: LAYOUT060

REAR-OFF SCALE FOR USE ON DRAWINGS WITH SCALE 1/4"=1'-0"

ELEVATION NOTES

- DO NOT SCALE ELEVATIONS, VERIFY WALL HEIGHTS WITH PLANS, CONTACT ARCHITECT WITH ANY DISCREPANCIES
- WHEN INTERSECTING TWO ROOF PLANES WITH DIFFERENT ROOF PITCHES, BLOCK TOP OF STUD WALL OR BEAM AS REQUIRED TO ALLOW FASCIAS TO LINE UP RETAINING A COMMON EAVE DISTANCE.
- SEE ROOF PLAN FOR TYPICAL EAVE AND RAKE DISTANCES UNLESS OTHERWISE NOTED ON ELEVATIONS
- IF RIDGE AND SOFFIT VENTS PROVIDE LESS THAN THE CODE MINIMUM, ADD CAN VENTS AS NEEDED TO THE REAR AND SIDE ELEVATIONS

WINDOW NOTES

- ALL WINDOWS ARE DESIGNATED IN ROUGH OPENING, SHOWN IN FEET & INCHES TO BE MET WITHIN 2" OR EXCEEDED, DEPENDING ON MFG.

EXAMPLE: 2555 = 2'-5" X 5'-5"
EXAMPLE: 3068 = 3'-0" X 6'-8"
EXAMPLE: 18080 = 18'-0" X 8'-0"

TEMPERED GLASS = (T)
FIXED WINDOW = (F)
EGRESS WINDOW = (E)
DOOR OR WINDOW PANE SLIDES RIGHT = (R)
DOOR OR WINDOW PANE SLIDES LEFT = (L)

EGRESS WINDOW BREAKDOWN =
- MIN. CLEAR OPEN AREA OF 5.7 S.F.
- MIN. CLEAR OPEN WIDTH OF 20"
- MIN. CLEAR OPEN HEIGHT OF 24"
- MAX. SILL HEIGHT OF 44"

REMODELING & ADDITION NOTES

- WHEN ALIGNING NEW ROOF PLANES WITH EXISTING, VERIFY EXISTING ROOF PITCH IN FIELD PRIOR TO PURCHASE OR ORDERING OF ROOFING STRUCTURAL AND FINISHING MATERIALS.
- ALL NEW SIDING TO MATCH EXISTING UNLESS OTHERWISE NOTED. VERIFY WITH OWNER.
- ALL NEW FASCIA, FRIEZE AND SOFFITS TO MATCH EXISTING UNLESS OTHERWISE NOTED, VERIFY WITH OWNER.
- VERIFY SIZE OF WINDOWS IN FIELD PRIOR TO PURCHASE.
- ALL BEDROOMS MUST BE PROVIDED ONE EGRESS WINDOW SIZE TO MEET LOCAL CODE. VERIFY LOCATION WITH PLANS AND OWNER.



2D / A200 EXISTING REAR/ STREET SIDE ELEVATION
1/4"=1'-0"



5D / A200 REAR/ STREET SIDE ELEVATION
1/4"=1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION
OR PERMIT SUBMITTAL

DESIGN STAGE
A.L.A. PRELIMINARY DESIGN
PRELIMINARY DESIGN
PRELIMINARY DESIGN
DESIGN DEVELOPMENT
DESIGN DEVELOPMENT
FINAL REVIEW
ISSUANCE FOR PERMIT

REVISIONS	
1	10-9-25
2	11-4-25
3	11-25-25
4	
5	

PRELIMINARY

ADER RESIDENCE
779 OAK COURT
CRYSTAL LAKE, IL 60014

EXISTING REAR/ STREET SIDE ELEVATION
REAR/ STREET SIDE ELEVATION

Architects & Planners, Inc.
IL Telephone: 815.459.2050 WI Telephone: 262.245.6002
2600 Belvar Road at Rt. 176, Crystal Lake, IL 60014
40 Crystal St., Cary, IL 60013
99 W. Main St., Lake Geneva, WI 53147
1700 E. Racine Ave., Waukesha, WI 53186

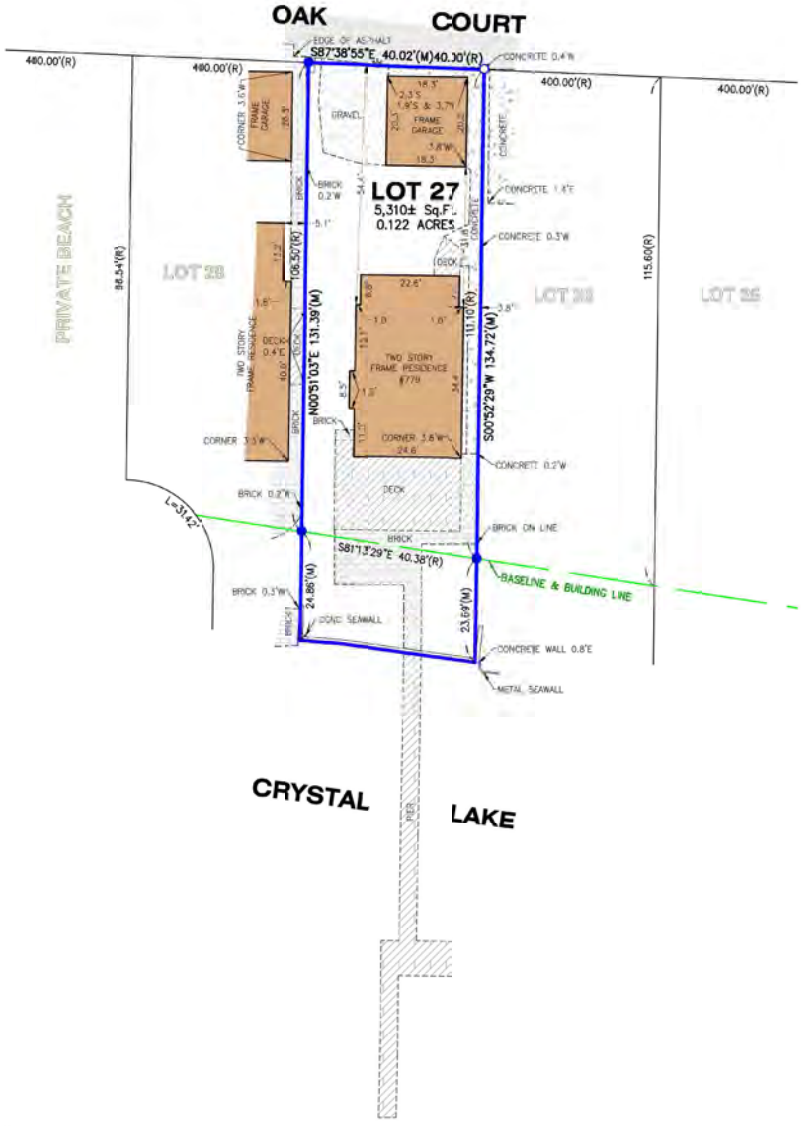
Job Number: 25072
Sheet Number: A200
File Name: LAYOUT2000

COPYRIGHT AS DATED ©
A.L.A. Architects & Planners, Inc.

Vanderstappen
Land Surveying, Inc.
www.vanderstappen.com
1316 N. Madison St.
Woodstock, Illinois 60098
ph. 815-337-8110 fax 815-337-8314
"Always faithful to the property line"

PLAT OF SURVEY

Lot 27 in First Addition to Clows Crystal Lake Park, a Subdivision of the Northwest Quarter of Section 6, Township 43 North, Range 8 East of the Third Principal Meridian, according to the Plat thereof recorded April 28, 1923 as Document No. 58798, in Book 4 of Plats page 83, in McHenry County, Illinois.



LEGEND	
✖	FOUND CROSS
●	FOUND IRON BAR
○	FOUND IRON PIPE
▭	MAIL BOX
◉	SET IRON BAR
⊗	SET MAG NAIL
⚘	WATER SHUT-OFF
(M)	MEASURED
(R)	RECORD

20' 0' 20' 40'
SCALE: 1" = 20'

CLIENT: SCHMITT ENGINEERING
DRAWN BY: JGK CHECKED BY: APG
SCALE: 1"=20' SEC. 06 T. 43 R. 08 E.
BASIS OF BEARING: IL EAST ZONE NAD83 (2011)
P.I.N.: 19-06-176-009
JOB NO.: 250400 I.D. LSS
FIELDWORK COMP.: 5/12/25 BK. ___ PG. ___
ALL DISTANCES SHOWN IN FEET AND DECIMAL PARTS THEREOF CORRECTED TO 68° F. REF: ___

NOTE: Only those Building Line Restrictions or Easements shown on a Recorded Subdivision Plat are shown hereon unless the description ordered to be surveyed contains a proper description of the required building lines or easements.

- No distance should be assumed by scaling.
- No underground improvements have been located unless shown and noted.
- No representation as to ownership, use, or possession should be hereon implied.
- This Survey and Plat of Survey are void without original embossed or colored seal and signature affixed.

Compare your description and site markings with this plat and AT ONCE report any discrepancies which you may find.

STATE OF ILLINOIS)
) S.S.
COUNTY OF McHENRY)

ARTHUR P. GRITMACHER
035-003857
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
EXP. 11/30/2026
WOODSTOCK, ILLINOIS

In my professional opinion, and based on my observations, I hereby certify that we have surveyed the premises above described, and that the plat hereon is a true representation of the said survey. This professional service conforms to the current Illinois minimum standards for a boundary survey.

Dated at Woodstock, McHenry County, Illinois 5/14 A.D., 2025.

Vanderstappen Land Surveying Inc.
Design Firm No. 184-002792

By: _____
Illinois Professional Land Surveyor No. 3857

I:\PLATS\2025\04QC-CWH\250400_0-250400\250400-LSE-CWH.dwg-Layout1-5/13/2025 9:48 PM

Agenda Item No: 15

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: REPORT OF THE PLANNING & ZONING COMMISSION

Request: Final Planned Unit Development (PUD) Amendment for the construction of an Engagement Hall building

Applicant: McHenry County College, owner
8900 US Route 14

PZC Recommendation: To approve the petitioner's request and adopt an ordinance granting the Final Planned Unit Development Amendment for the construction of an Engagement Hall building at 8900 US Route 14

Staff Contact: Kathryn Cowlin, Director of Community Development
Darrell Moore, Assistant City Planner

Background:

- Request: Final PUD Amendment for the construction of an Engagement Hall building.
- Land Use: The land use map shows the area as Public & Semi-Public.
- Zoning: The site is zoned "W" Watershed.
- Previous Approvals:
  - 1985-15: MCC annexation
  - 2000-09: PUD Amendment for building and parking lot expansion
  - 2008-05: Variation to allow up to 50% impervious surface coverage
  - 2012-30: Master Plan Conceptual
  - 2013-12: Deferral from Watershed stormwater requirements for parking lot and temporary sign
  - 2015-65: Adoption of a Master Sign plan for the campus
  - 2016-57: Final PUD Amendment to construct the Science Center building and modification of the Master Sign Plan
  - 2022-157: Final PUD Amendment to construct the CATI building

PZC Highlights:

The following discussion took place during the August 6, 2025 Planning and Zoning Commission hearing:

- The petition was represented by attorney Dan Curran, MCC officer Bob Tenuta, architect Dominick Demonica (DKA), and engineer Todd Richards (HR Green). Together they presented the proposal to add a 9,000-square-foot Engagement Hall building addition to the MCC campus. The purpose of the building, which is to be located near the center of the campus complex, is to provide a dedicated space for meetings, events, and receptions that are currently being conducted in various spaces throughout the campus. In addition to the proposed building, MCC will improve the south entrance, enhance outdoor gathering spaces, and upgrade stormwater infrastructure—including creating a detention pond and increasing the storm sewer capacity.
- Staff noted that the Unified Development Ordinance design standards were met.
- No public spoke on the matter.
- There was general agreement amongst the commission that the proposal was well designed and would be a good addition to campus. After additional questions about site engineering, the commissioners expressed satisfaction that the proposal would improve stormwater management.
- The PZC found that the request meets the Findings of Fact.

The Planning and Zoning Commission recommended **approval (6-0)** of the petitioner's request.

If the City Council chooses to approve the request, the following conditions are recommended:

1. Project plans shall be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
    A. Application (7/15/25)
    B. Site Plan / Architectural Plan / Landscape Plan (Demonica Kemper Architects, IMEG Corp., HR Green, 5/27/25)
    C. Exterior Elevations (Demonica Kemper Architects)
    D. Floor Plan (Demonica Kemper Architects)
    E. Stormwater Management Report (HR Green, 5/16/25)

2. That all review comments and requirements of the departments of Community Development, Public Works and Engineering, stormwater consultant, and Fire Rescue shall be sufficiently addressed.

Votes Required to Pass: A simple majority.

PARCEL IN QUESTION

(Total Project Area includes proposed building, remodeled exteriors, stormwater basin, and landscaping)





Ord. No.
File No.

The City of Crystal Lake Illinois

AN ORDINANCE GRANTING AN AMENDMENT TO THE FINAL PUD FOR McHENRY COUNTY COLLEGE

WHEREAS, pursuant to the terms of the Petition (File #2025-125) before the Crystal Lake Planning and Zoning Commission, the Petitioner has requested an Amendment to the Final Planned Unit Development for the construction of the Engagement Hall; and

WHEREAS, the Planning and Zoning Commission of the City of Crystal Lake, pursuant to notice duly published on July 19, 2025 in the Northwest Herald, held a public hearing at 7:00 p.m., on August 6, 2025 at City Hall at 100 W. Woodstock Street, Crystal Lake, Illinois to consider the proposed Amendment to the Final Planned Unit Development; and

WHEREAS, on August 6, 2025, the Planning and Zoning Commission, having fully heard and considered the testimony of all those present at the public hearing who wished to testify, made findings of fact as required by law and recommended to the Mayor and City Council of the City of Crystal Lake that the proposed Amendment to the Final Planned Unit Development be approved, as documented in the minutes; and

WHEREAS, it is in the best interests of the City of Crystal Lake that the Amendment to the Final Planned Unit Development be granted as requested in said Petition,

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CRYSTAL LAKE, McHENRY COUNTY, ILLINOIS, as follows:

SECTION I: That a Final PUD Amendment be granted to permit the construction of the Engagement Hall for the property located at 8900 US Highway 14 (13-25-300-021, 13-25-300-015, 13-25-176-001), Crystal Lake, Illinois.

SECTION II: That the Final PUD Amendment be granted with the following conditions:

1. Project plans shall be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
    A. Application (7/15/25)

B. Site Plan / Architectural Plan / Landscape Plan (Demonica Kemper Architects, IMEG Corp., HR Green, 5/27/25)
C. Exterior Elevations (Demonica Kemper Architects)
D. Floor Plan (Demonica Kemper Architects)
E. Stormwater Management Report (HR Green, 5/16/25)

2. That all review comments and requirements of the departments of Community Development, Public Works and Engineering, stormwater consultant, and Fire Rescue shall be sufficiently addressed.

SECTION III: That the City Clerk be and is hereby directed to amend all pertinent records of the City of Crystal Lake to show the issuance of a Planned Unit Development Amendment in accordance with the provisions of this Ordinance, as provided by law.

SECTION IV: That this Ordinance shall be in full force and effect from and after its passage, approval and publication as provide by law.

DATED at Crystal Lake, Illinois, this 19th day of August, 2025.

City of Crystal Lake, an
Illinois municipal corporation

_____
Haig Haleblian, MAYOR

SEAL

ATTEST:

_____
CITY CLERK

Passed: August 19, 2025
Approved: August 19, 2025

#2025-125
McHenry County College Engagement Hall – Final PUD Amendment
Project Review for Planning and Zoning Commission

Meeting Date:	August 6, 2025
Request:	Final PUD Amendment for the construction of an Engagement Hall building
Location:	McHenry County College, 8900 US Route 14
Acreage:	Approximately 170 acres
Existing Zoning:	W Watershed
Surrounding Properties:	North: O-PUD Office and W Watershed South: RE Residential Estate East: W Watershed and A-1 Agriculture (County) West: A-1 Agriculture (County)
Staff Contact:	Darrell Moore (815) 356-3612

Background:

- The property is the location of McHenry County College, which seeks to build an addition near the center of the building complex for meetings and events, referred to as the Engagement Hall.
- The Engagement Hall is approximately 9,000 square feet in area. The project also includes redesigning the outside paved surface areas on each side of the building. The net total increase in impervious surface will be approximately 3,000 square feet. The runoff from the proposed building will be routed to a proposed infiltration basin, separate from the existing detention basin. A stormwater report was prepared by HR Green.
- No additional parking is proposed. The petitioner has stated that, because the Engagement Hall will host events already occurring at the college, increased parking demand will be minimal and be able to be accommodated by the existing parking facilities.
- Previous Approvals:
    - 1985-15: MCC annexation
    - 2000-09: PUD Amendment for building and parking lot expansion
    - 2008-05: Variation to allow up to 50% impervious surface coverage
    - 2012-30: Master Plan Conceptual
    - 2013-12: Deferral from Watershed stormwater requirements for parking lot and temporary sign
    - 2015-65: Adoption of a Master Sign plan for the campus

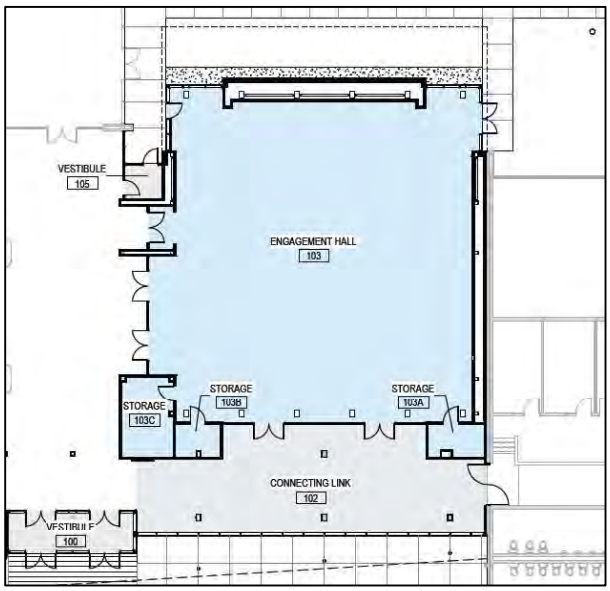
- 2016-57: Final PUD Amendment to construct the Science Center building and modification of the Master Sign Plan
- 2022-157: Final PUD Amendment to construct the CATI building



Development Analysis:

General

- Request: Final PUD Amendment for the construction of an Engagement Hall building.
- The request requires review by the PZC and approval from the City Council since the property is governed by a PUD and an approved site plan.
- Zoning: The site is zoned W Watershed
- Land Use: The land use map shows the area as Public & Semi-Public



Site Layout

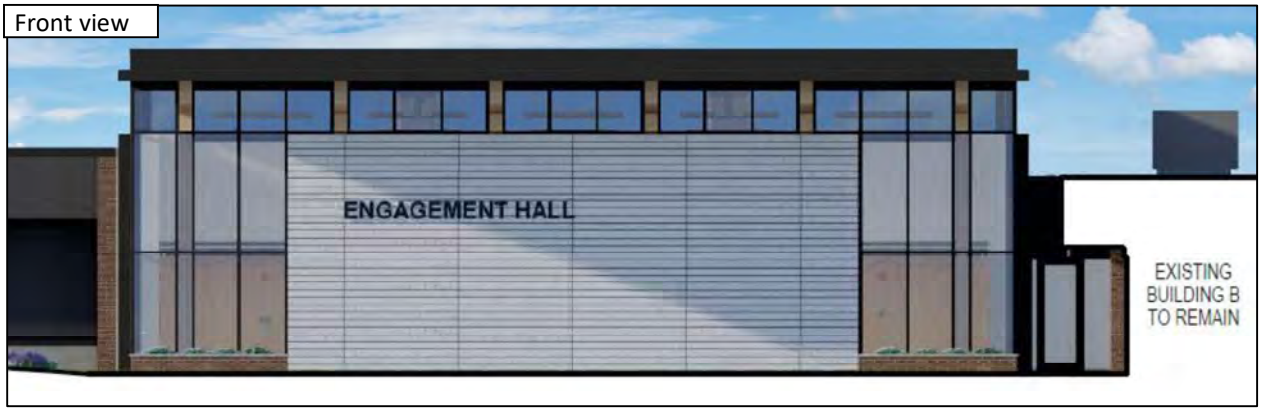
- The project includes a new building addition, new patios/flatwork in the front and rear, and an infiltration basin. The total project area is 50,348 square feet.

- Because the proposed building location is currently a courtyard patio, the net increase in impervious surface area is calculated to be 3,014 square feet.
- The proposed building, which is setback more than 700 feet from Tarton Drive, will integrate into the existing building complex through multiple interior connections.
- Runoff from the added impervious surface will be diverted to a newly created stormwater infiltration basin.

Building Elevations

- At 23 feet, the proposed building will be five to seven feet taller than the adjacent portions of the existing building to the east and west, providing a varying roofline profile encouraged in the UDO design standards. This height is compliant with the W Watershed zoning district, which does not have a specified height limitation, and remains lower than other buildings in the campus complex.
- Proposed materials include: aluminum curtain wall (glass), dark aluminum fascia and coping, heavy timber beams, and a glass fiber reinforced concrete panel system. The exterior of the existing building connector to the south is proposed to be remodeled to match the materials of the Engagement Hall, plus it will feature phenolic (high-pressure laminate) wood panel planks framing a wall of windows. The predominant use of glass complements other newer portions of the campus complex, including a rounded two-story glass entrance on Building E, just east of the proposed addition. The dark aluminum cornice is similar to the cornices in the older parts of the complex. The UDO design standards are met.

Front view



Rear view





Landscaping

- The proposal included extensive landscaping improvements including the planting of deciduous trees, ornamental trees, deciduous shrubs, evergreen shrubs, grasses, perennials, and native seed/wildflower mix.

Parking

- No existing parking will be impacted by the proposed addition, and no new parking is proposed.
- According to the application, the Engagement Hall daytime events would include student orientations, job fairs, speaker presentations, and round-table discussions. Evening events would include galas, banquets, and fundraisers. All of these events are already held on campus in different locations, such as the cafeteria, gym, and large classrooms, that require extensive set-up and take-down efforts. By providing a dedicated space on campus to serve events that are already occurring there, the petitioner anticipates that any additional parking demand will be minimal.

Findings of Fact:

The purpose of Planned Unit Developments is to encourage and allow more creative and imaginative design of land developments than is possible under district zoning regulations. Planned Unit Developments are, therefore, intended to allow substantial flexibility in planning and designing a proposal. This flexibility is often in the form of relief from compliance with conventional zoning ordinance site and design requirements.

Ideally, this flexibility results in a development that is better planned, contains more amenities, and is ultimately more desirable than one that would have been produced through compliance with typical zoning ordinance and subdivision controls.

Therefore, more lenient site requirements may be granted where the Planned Unit Development contains features not normally required of traditional developments. If the evidence is not found to justify such conditions, that fact shall be reported to the City Council with a recommendation that the variation request be lessened or denied.

2030 Comprehensive Land Use Plan Summary

The Comprehensive Plan designates the subject property as Public / Semi-Public. MCC fits within this category. The following goals are applicable to this request:

> **Goal:** Provide area for high quality public and semi-public facilities, such as schools, libraries, municipal facilities and private service providers, throughout the City to support the diverse and evolving needs of the people in the City.
>
> **Supporting Action:** Carefully plan for a reasonable rate of growth that promotes a maximum use of existing facilities and minimizes the need for new facilities.
>
> **Success Indicator**: Public and Semi-public uses should look to expand within their existing facilities.

Recommended Conditions:

If a motion to recommend approval of the petitioner's request is made, it should include the following conditions:

1. Project plans shall be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
    A. Application (7/15/25)
    B. Site Plan / Architectural Plan / Landscape Plan (Demonica Kemper Architects, IMEG Corp., HR Green, 5/27/25)
    C. Exterior Elevations (Demonica Kemper Architects)
    D. Floor Plan (Demonica Kemper Architects)
    E. Stormwater Management Report (HR Green, 5/16/25)

2. That all review comments and requirements of the departments of Community Development, Public Works and Engineering, stormwater consultant, and Fire Rescue shall be sufficiently addressed.

City of Crystal Lake
Development Application

Office Use Only
File # _____

Project Title: _____

Action Requested

- ___ Annexation
- ___ Comprehensive Plan Amendment
- ___ Conceptual PUD Review
- ___ Final PUD
- X Final PUD Amendment
- ___ Final Plat of Subdivision
- ___ Preliminary PUD
- ___ Preliminary Plat of Subdivision
- ___ Rezoning
- ___ Special Use Permit
- ___ Variation
- ___ Other

Petitioner Information

Name: McHenry County College Dist 528
Address: 8900 Route 14
Crystal Lake IL 60012
Phone: 815-455-8585
Fax: _____
E-mail: btenuta@mchenry.edu

Owner Information (if different)

Name: McHenry County College Dist 528
Address: 8900 Route 14
Crystal Lake IL 60012
Phone: 815-455-8585
Fax: _____
E-mail: btenuta@mchenry.edu

Property Information

Project Description: Final PUD Amendment for the construction of a building addition.
SEE Exhibit "A"

Project Address/Location: 8900 Route 14, Crystal Lake IL 60012

PIN Number(s): 13-25-300-021, 13-25-176-001 & 13-25-300-015

Development Team

Please include address, phone, fax and e-mail

Developer: McHenry County College Dist 528, 8900 Route 14, Crystal Lake IL 60012, 815-455-8585 btenuta@mchenry.edu

Architect: Demonica Kemper, David Sikorski, 125 W Halsted, Ste 301, Chicaho IL 60661 - 312-941-9988 dsikorski@dkadesign.com

Attorney: Daniel F Curran, 8600 Route 14, Ste 210, Crystal Lake IL 60012 - 815-560-8008 - dcurran@dancurranlaw.com

Engineer: HR Green Todd Richards - 1391 Corporate Dr, Ste 203, McHenry IL 60050 - 815-385-1778 trichards@hrgreen.com

Landscape Architect: _____

Planner: _____

Surveyor: _____

Other: _____

Signatures

_____ 7/15/2025

PETITIONER: Print and Sign name (*if different from owner*) **Date**

As owner of the property in question, I hereby authorize the seeking of the above requested action.

_____ 7/15/2025

OWNER: Print and Sign name **Date**

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

EXHIBIT "A"

The anticipated events in the Engagement Hall would include daytime events (student orientations, job fairs, speaker presentations or round table discussions) and evening events (galas, banquets, fundraisers). Occasional weekend events would also be possible. The events noted all currently are held on campus in different locations that require more extensive set-up and take parts of campus offline during those times (cafeteria, gym, large classrooms) so this space would serve to house those events already occurring on campus in a dedicated space with minimal anticipated additional parking load.

CRYSTAL LAKE PLANNING AND ZONING COMMISSION
WEDNESDAY, AUGUST 6, 2025
HELD AT THE CRYSTAL LAKE CITY COUNCIL CHAMBERS

2025-125 – 8900 US ROUTE 14 – MCHENRY COUNTY COLLEGE FINAL PUD AMENDMENT
Final PUD Amendment for the construction of an Engagement Hall building addition.

Attorney Dan Curran, representing the college, was joined by Bob Tenuta, MCC Chief Financial Officer; Dominick Demonica of Demonica Kemper Architects; and Todd Richards of HR Green Engineers. The application is for a Final Planned Unit Development Amendment to construct a 5,200-square-foot engagement hall between Buildings B and C.

Mr. Curran stated that the Engagement Hall was designed as a multi-purpose facility for student events. They currently use other spaces, which often displaces dining or athletic uses. The project includes stormwater management upgrades to address flooding concerns and new landscaping with a plaza for outdoor gatherings. The college plans to begin construction in September 2025 and complete it by summer 2026. Mr. Richards described the engineering improvements, including installation of a stormwater infiltration basin, replacement of an existing 27-inch storm pipe with a 36-inch and a 48-inch pipe, relocation of a water main, and creation of an overflow routing system for extreme storms and the increase in future rainfall.

Mr. Greenman opened the public comment portion of the hearing. There being no one to speak, he closed the public comment portion of the hearing and asked for staff to present the staff report.

Mr. Moore reported that as far as development standards in UDO, he believed it was consistent with meeting those standards. The building integrates well with the campus, and was consistent with staff's recommendations.

Mr. Smith inquired about the drainage improvements, including the infiltration basin and overflow system. Mr. Richards explained the intent for the basin to be isolated from previous areas prone to flooding.

Ms. Dzielski stated that the design was attractive and functional, she had no questions.

Mr. Gronow asked if there would be entrances on the north side of the building; Mr. Demonica confirmed that there would be.

Ms. Mason stated that the design looked nice and was much needed. She asked the petitioner if there would be any opportunity for individuals other than students to utilize the space. Mr. Tenuta responded that it may be possible at some point for community members to rent the space, when not in use by the college.

Mr. Skluzacek had no questions.

Mr. Greenman commended the project and asked about the likelihood of flooding in the loading zone during large storm events. Mr. Richards responded that, while the improvements would greatly reduce flooding risk, extreme storm events could still cause occasional pooling.

Mr. Smith made a motion to approve the Final PUD Amendment as presented, subject to staff conditions.

1. Project plans shall be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
    a. Application (7/15/25)
    b. Site Plan / Architectural Plan / Landscape Plan (Demonica Kemper Architects, IMEG Corp., HR Green, 5/7/25)
    c. Exterior Elevations (Demonica Kemper Architects)
    d. Floor Plan (Demonica Kemper Architects)
    e. Stormwater Management Report (HR Green, 5/16/25)

2. That all review comments and requirements of the departments of Community Development, Public Works and Engineering, stormwater consultant, and Fire Rescue shall be sufficiently addressed.

Mr. Skluzacek seconded the motion. On roll call, Members Dzielski, Gronow, Mason, Skluzacek, Smith, and Greenman voted yes. The motion passed 6-0.

REPORT FROM PLANNING

Staff noted the recent City Council approvals and announced that there are no agenda items for the August 20, 2025 meeting, and it will be cancelled.

COMMENTS FROM THE COMMISSION

No comments.

ADJOURNMENT

Mr. Gronow made a motion to adjourn the meeting. Mr. Smith seconded the motion. On voice vote, all members voted aye. The meeting was adjourned at 8:21 p.m.

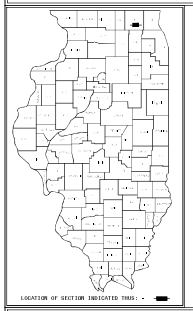
MCHENRY COUNTY COLLEGE
ENGAGEMENT HALL
8900 US-14
CRYSTAL LAKE, ILLINOIS 60012

PARCEL # 13-25-300-021

OWNER:
MCHENRY COUNTY COLLEGE
8900 U.S. HIGHWAY 14
CRYSTAL LAKE, ILLINOIS 60012

ENGINEER:
HR GREEN INC.,
1391 CORPORATE DRIVE, SUITE 203
McHENRY, IL 60050
PHONE: (815) 385-1778

TODD RICHARDS, P.E. PROJECT ENGINEER
PHONE: (815) 759-8350

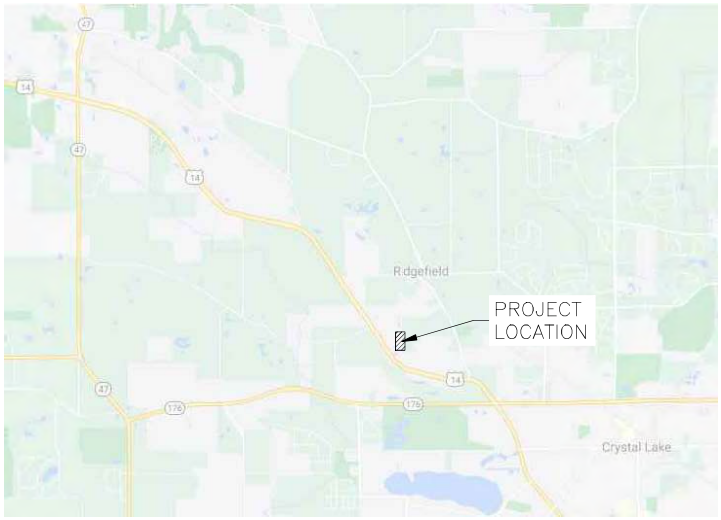


Dial 811 or 1-800-892-0123
811
Know what's **below.**
Call before you dig.

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY McHenry
CITY-TOWNSHIP Crystal Lake - Dorr
SEC. & 1/4 SEC. NO.s SW 1/4 OF SEC-25-T-44N-7E
48 hours before you dig
(Excluding Sat., Sun. & Holidays)

NOTE:
- HR GREEN, INC. IS TO BE NOTIFIED 3 DAYS PRIOR TO CONSTRUCTION START.
- HR GREEN, INC. SHALL BE INCLUDED IN ALL PRE-CONSTRUCTION MEETINGS.
- ANY KNOWN DISCREPANCIES ON THIS PLAN SET MUST BE BROUGHT TO THE ATTENTION OF HR GREEN, INC. PRIOR TO THE START OF CONSTRUCTION.

LOCATION MAP



(N.T.S.)

SHEET INDEX

Sheet Number	Sheet Title
C-00	COVER SHEET
C-01	GENERAL NOTES, SPECIFICATIONS & LEGEND
C-02	OVERALL SITE PLAN
C-03	SITE DEMOLITION PLAN
C-04	SITE PLAN
C-05	GRADING & EROSION CONTROL PLAN - NORTH
C-06	GRADING & EROSION CONTROL PLAN - SOUTH
C-07	UTILITY PLAN
C-08	EROSION CONTROL DETAILS
C-09	EROSION CONTROL DETAILS
C-10	STANDARD CONSTRUCTION DETAILS
C-11	STANDARD CONSTRUCTION DETAILS
C-12	STANDARD CONSTRUCTION DETAILS
L-100	OVERALL LANDSCAPE PLAN
L-101	LANDSCAPE NOTES & DETAILS
L-102	LANDSCAPE SPECIFICATIONS

SITE BENCHMARK NOTES:
- SOURCE BENCHMARK: BENCHMARK #4" PER AS SHOWN ON THE PLANS FOR "MCHENRY COUNTY COLLEGE NEW SCIENCE CENTER " DATED AUGUST 11, 2017, BEING A CUT SQUARE ON NORTH FACE OF LIGHT POLE BASE LOCATED IN THE MIDDLE CURB ISLAND LOCATED EAST OF PARKING LOT D, NORTH OF THE RING ROAD AND SOUTH OF BUILDING D.
  - ELEV = 921.24 (NAVD 88)
- SITE BENCHMARK (BM#1): NORTHWEST ARROW BOLT ON THE FIRE HYDRANT LOCATED APPROXIMATELY 90 FEET WESTERLY OF THE ENTRANCE TO BUILDING E.
  - ELEV = 921.49 (NAVD 88)
- SITE BENCHMARK (BM#2): NORTHEAST ARROW BOLT ON THE FIRE HYDRANT LOCATED APPROXIMATELY 70 FEET NORTHEASTERLY OF THE ENTRANCE TO BUILDING B.
  - ELEV = 919.44 (NAVD 88)
- HR GREEN, INC. CONTROL DISCLAIMER: THE ATTACHED BENCHMARKS ARE FOR CONSTRUCTION PURPOSES ONLY. BY USING THE DATA PROVIDED HEREON, USERS ARE RESPONSIBLE FOR VERIFYING THE ACTUAL HORIZONTAL AND VERTICAL LOCATIONS OF PROPOSED IMPROVEMENTS BASED ON THE EXISTING EXTERIOR PROPERTY CORNERS AND SITE BENCHMARKS. HR GREEN, INC. ASSUMES NO RESPONSIBILITY FOR THE IMPROPER USE OF THE INFORMATION HEREIN PROVIDED.

HRGreen

1391 CORPORATE DRIVE, SUITE 203 | McHENRY, ILLINOIS 60050
Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 815.385.1781 | HRGreen.com

ISSUED FOR BID – NOT FOR CONSTRUCTION

5/13/2025 2:42:39 PM
J:\2024\2403560\CAD\Dwgs\C\2403560_Cover.dwg

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE 203 MCHENRY, IL 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

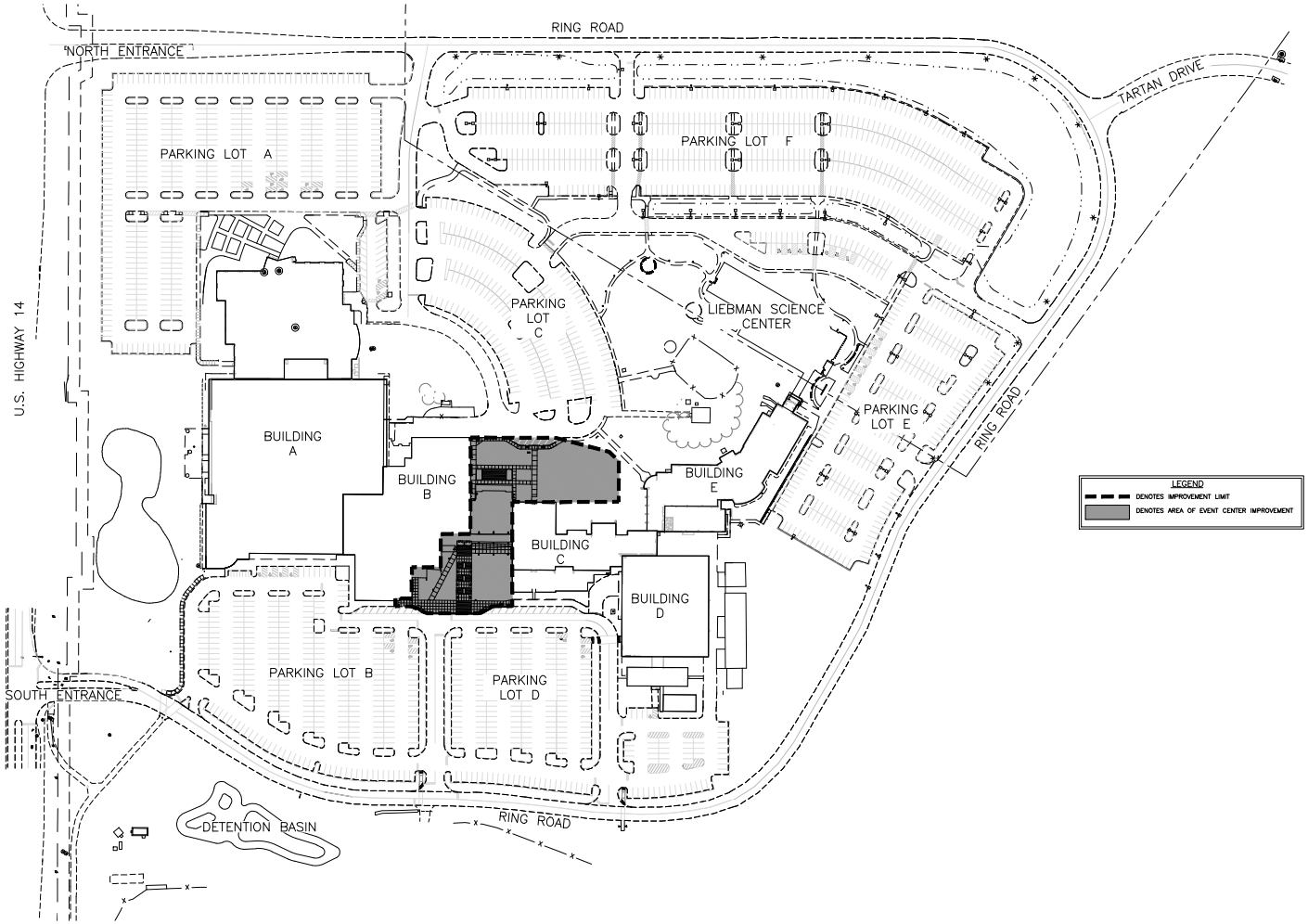
LICENSED PROFESSIONAL ENGINEER
TODD M. RICHARDS
062-058779
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/07/25

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-00



ISSUED FOR BID – NOT FOR CONSTRUCTION

5/15/2025 2:54:41 PM
J:\2024\2403560\CAD\Dwgs\C\2403560_Overall_Plan.dwg

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

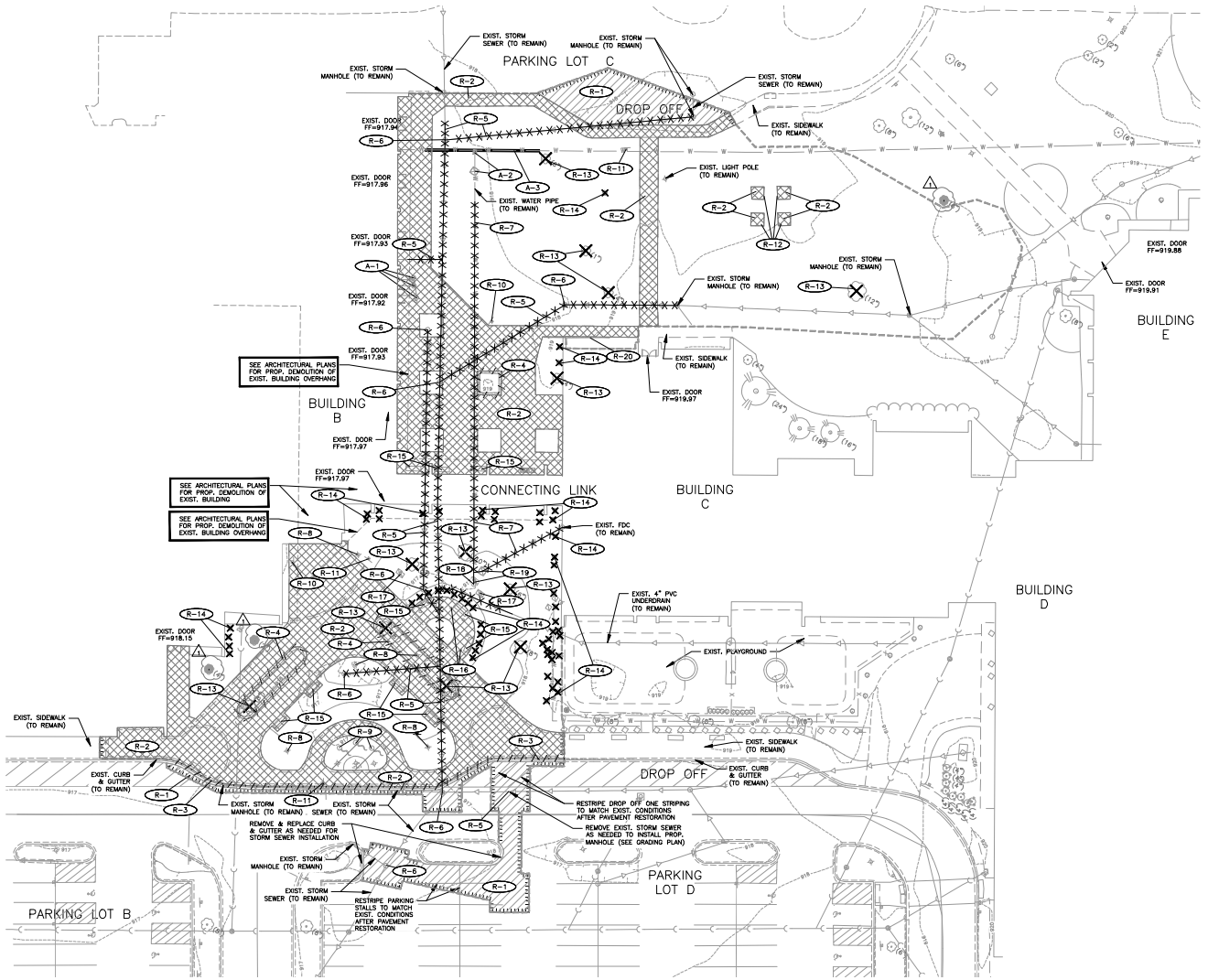
TODD M. RICHARDS
062-058779
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/01/25

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C-02



NOTES:

- MCHENRY COUNTY COLLEGE (MCC) SHALL BE NOTIFIED OF ALL NON IDENTIFIED UNDERGROUND UTILITIES OR CONDUITS DISCOVERED DURING CONSTRUCTION. IF ANY OF THE UTILITY OR CONDUITS NEED TO BE REPAIRED, PLUGGED, REROUTED AND OR ABANDONED IN PLACE, IT SHALL TAKE PLACE PER THE DIRECTION OF THE MCC.
- ALL AREAS NOT WITHIN THE PROPOSED GRASSED AREAS OR STORMWATER MANAGEMENT FACILITY SHALL BE RESTORED WITH 4" TOPSOIL AND IDOT CLASS 1A SEED.

REMOVAL NOTES:

- ALL REMOVALS IN NON-PAVED AREAS DENOTED TO REQUIRE CLEARING AND GRUBBING SHALL INCLUDE TOPSOIL STRIP AND STOCKPILE AS PART OF THE REMOVAL UNLESS OTHERWISE NOTED.

LEGEND

- INDICATES FNA PAVEMENT REMOVAL (FULL DEPTH) (SEE TAGS FOR INFORMATION)
- INDICATES CONCRETE REMOVAL (FULL DEPTH) (SEE TAGS FOR INFORMATION)
- INDICATES UTILITY REMOVAL
- R-# INDICATES MISC. REMOVAL ITEMS
- INDICATES EXIST. CONCRETE CURB & GUTTER OR WALL TO BE REMOVED
- INDICATES TREE AND BRUSH REMOVAL (SEE LANDSCAPE PLANS)
- INDICATES TREE AND BRUSH PROTECTION (SEE LANDSCAPE PLANS)
- INDICATES PAVEMENT SAWCUT
- NOTE: REFER TO PLANS BY CM LOGISTICS PLAN FOR CONSTRUCTION FENCE AND BARRIER LAYOUT.

PROJECT NOTES:

- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. IN ADDITION TO, NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. (INCLUDING STORM WATER POLLUTION PREVENTION PLAN PER THE DEVELOPMENT CRITERIA.) SEE SHEET C-05 & C-06 FOR EROSION CONTROL MEASURES)
- ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
- ALL STRUCTURES & DEBRIS SHALL BE REMOVED PRIOR TO CONSTRUCTION & DISPOSED OF OFFSITE.
- ANY EXISTING FIELD DRAIN TILES ENCOUNTERED SHALL BE RECONNECTED OR CONNECTED TO THE NEAREST STORM SEWER.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- CONTRACTOR TO KEEP RING ROAD OPEN AT ALL TIMES.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.

STAGING NOTE:
(STAGING SUBJECT TO CHANGES PER SITE CONTRACTORS SCHEDULE AND METHODS OF OPERATION)

1. EROSION CONTROL MEASURES
2. PLAN REMOVALS
3. PROPOSED UNDERGROUND
4. GRADING
5. BUILDING CONSTRUCTION
6. PAVING
7. TOPSOIL RESPREAD/SEED

REMOVAL TAGS:

NUMBER	DESCRIPTION	REMARKS
A-1	SANITARY SEWER STRUCTURE	ADJUST RIM TO FINISHED GRADE
A-2	WATER STRUCTURE	ADJUST RIM TO FINISHED GRADE
A-3	WATER MAIN	LOWER WATERMAIN (SEE UTILITY PLAN)
R-1	ASPHALT PAVEMENT	REMOVE (FULL DEPTH)
R-2	CONCRETE PAVEMENT/SIDEWALK	REMOVE (FULL DEPTH)
R-3	CONCRETE CURB & GUTTER	REMOVE
R-4	CONCRETE PLANTER WALL	REMOVE
R-5	STORM SEWER PIPE	REMOVE
R-6	STORM SEWER STRUCTURE	REMOVE
R-7	WATER PIPE	REMOVE
R-8	LIGHT POLE	REMOVE
R-9	FLAG POLE	REMOVE & RELOCATE (BY OWNER)
R-10	SIGN	REMOVE
R-11	SIGN	REMOVE & RELOCATE (SEE SITE PLAN)
R-12	SCULPTURE	REMOVE & RELOCATE (BY OWNER)
R-13	TREE	REMOVE
R-14	BUSH	REMOVE
R-15	BENCH	REMOVE
R-16	PERGOLA & FENCE POST	REMOVE
R-17	IRRIGATION HANDHOLE	REMOVE
R-18	FIRE HYDRANT	REMOVE
R-19	WATER VALVE OR B-BOX	REMOVE
R-20	RETAINING WALL	REMOVE

ISSUED FOR BID – NOT FOR CONSTRUCTION

0 20'
1" = 20'

5/20/2025 3:47:37 PM
J:\2024\2403560\CAD\Dwgs\C\2403560_Demo_Plan.dwg

dkA

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

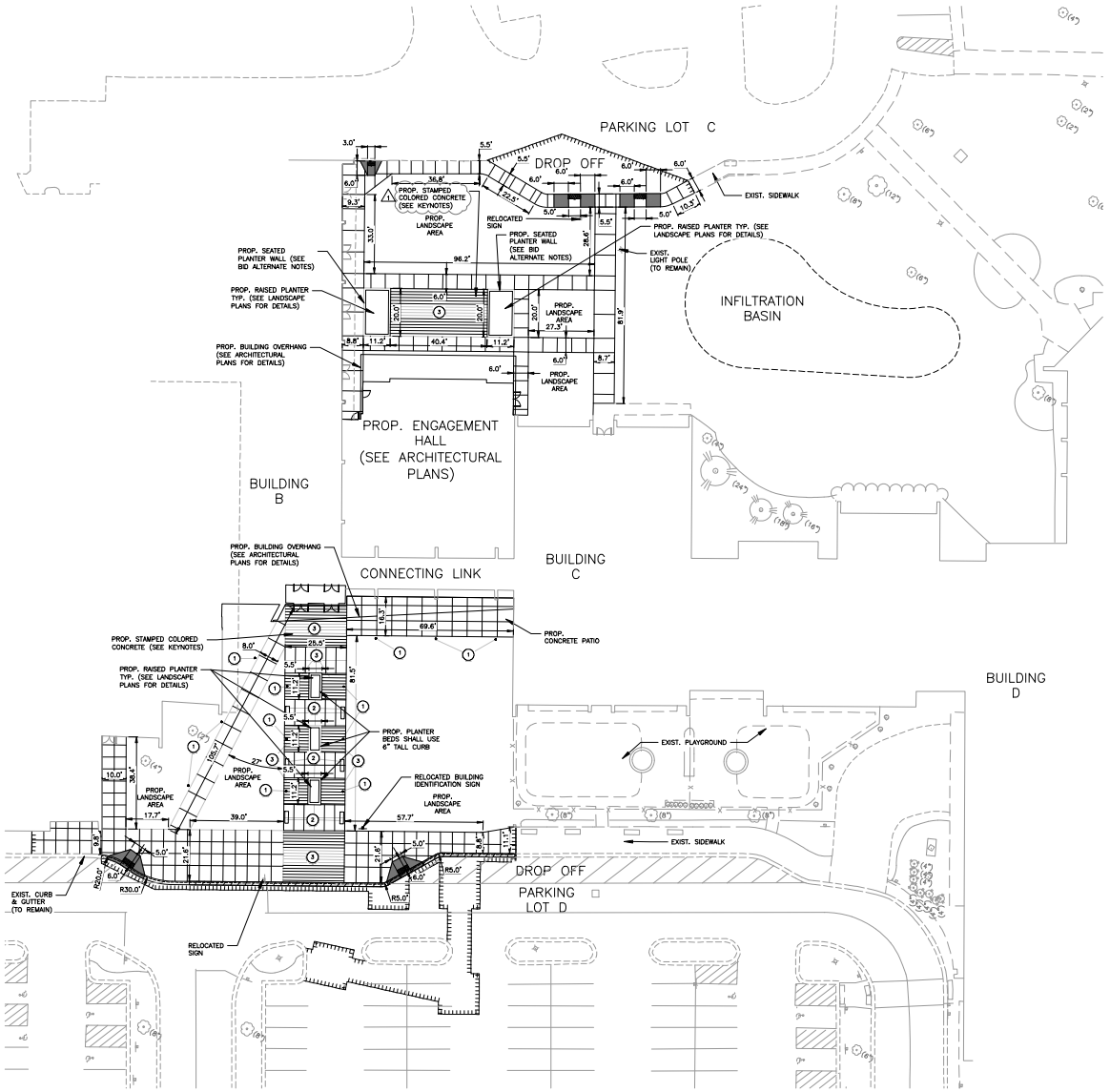
LICENSED PROFESSIONAL ENGINEER – STATE OF ILLINOIS
TODD M. RICHARDS
062-058779

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/16/25

SHEET TITLE:
SITE DEMOLITION PLAN

SHEET NUMBER:
C-03



KEYNOTES:

1. LIGHTED BOLLARDS (SEE ELECTRICAL PLANS FOR LOCATION AND QUANTITY)
2. BENCHES (SEE ARCHITECTURAL PLANS)
3. STAMPED COLORED CONCRETE (SEE STAMPED COLORED CONCRETE NOTES, THIS SHEET)

HATCH LEGEND

- DENOTES PAVEMENT SAWCUT
- DENOTES REVERSE (SPILLING) CURB & GUTTER
- DENOTES CONCRETE CURB & GUTTER (CATCHING)
- DENOTES AREA OF DEPRESSED CURB AND GUTTER.
- DENOTES PROP. SIDEWALK
- DENOTES PROP. STAMPED COLORED CONCRETE
- DENOTES AREA OF DEPRESSED SIDEWALK
- DENOTES AREA TO UTILIZE TRUNCATED DOMES

PROJECT NOTES:

- CONTRACTOR TO COORDINATE W/ COLLEGE PRIOR TO CLOSING ANY PORTIONS OF THE EXISTING BUILDING OR PARKING LOT.
- ALL CONSTRUCTION FOR UTILITIES AND PAVEMENT SHOULD BE DONE IN ACCORDANCE WITH CITY OF CRYSTAL LAKE STANDARD SPECIFICATIONS.
- ALL PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL PAVEMENT RADII ARE 5.0' RADIUS MEASURED TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- ALL CURB ADJOINING SIDEWALKS SHALL BE DOWELED INTO THE CURB.

CONTRACTOR NOTES:

- CONTRACTOR TO COORDINATE THE SHUT DOWN OF THE EXISTING WATER MAIN WITH McHENRY COUNTY COLLEGE, THE CITY OF CRYSTAL LAKE AND THE CRYSTAL LAKE FIRE PROTECTION DISTRICT.
- ONCE THE EXISTING WATER MAIN IS ISOLATED/SHUT DOWN THE EXISTING WATER MAIN REMOVALS CAN BE MADE AND CONTRACTOR SHALL INSTALL THE NEW WATER MAIN LINE WITH CARRIER PIPE PER PLAN. ONCE THE PROPOSED WATER MAIN IS COMPLETE CONTRACTOR SHALL CONNECT IT THE EXISTING WATER MAIN AND RE-ENERGIZE THE ISOLATED LINE.

SITE DATA:

- PIN: 13-25-300-021
- PROPOSED PROJECT AREA: 50,348± SQ. FT. (1.16 ACRES)
- EXISTING IMPERVIOUS WITHIN PROJECT AREA: 21,481± SQ. FT. (42.67%)
  - PAVED SURFACE: 17,318± SQ. FT. (34.40%)
  - BUILDING AREA: 4,163± SQ. FT. (8.27%)
- PROPOSED IMPERVIOUS WITHIN PROJECT AREA: 24,495± SQ. FT. (48.56%)
  - PAVED SURFACE: 15,196± SQ. FT. (30.18%)
  - BUILDING AREA: 9,299± SQ. FT. (18.47%)
- NET CHANGE IN IMPERVIOUS AREA: 3,014± SQ. FT. INCREASE
  - PROPOSED EVENT CENTER ROOF AREA: 6,347± SQ. FT.
  - IMPERVIOUS TO EXIST. BASIN REDUCTION: 3,333± SQ. FT., SEE NOTE BELOW.
- NOTE:
  - BUILDING AREA REFERS TO BUILDING ROOF AREA. PAVED SURFACE REFERS TO IMPERVIOUS AREA AT GROUND LEVEL. THE PROPOSED DEVELOPMENT RESULTS IN AN OVERALL INCREASE IN IMPERVIOUS AREA, HOWEVER, THE STORMWATER RUNOFF FROM THE PROPOSED EVENT CENTER BUILDING WILL BE ROUTED TO A PROPOSED INFILTRATION BASIN SEPARATE FROM THE EXISTING DETENTION BASIN. BECAUSE THIS BUILDING AREA WILL NO LONGER TRIBUTARY TO THE EXISTING DETENTION BASIN IT HAS BEEN CONSIDERED AS A HARDSCAPE AREA REDUCTION FOR PURPOSES OF STORMWATER CALCULATIONS. SEE STORMWATER MANAGEMENT REPORT FOR FURTHER DETAILS.

BUILDING AREA:

- PROPOSED BUILDING TO BE CONSTRUCTED PER ARCHITECTURAL PLANS.

PARKING DATA:

- NO CHANGES PROPOSED TO EXISTING PARKING.

STAMPED COLORED CONCRETE NOTES:

1. CONCRETE SHALL UTILIZE RUNNING BOND PATTERN PERPENDICULAR TO THE LONG AXIS OF THE SIDEWALK.
2. CONCRETE SHALL HAVE DARK GREY COLOR. CONTRACTOR SHALL PROVIDE MANUFACTURER'S COLOR CHART TO OWNER FOR SELECTION.
3. CONTRACTOR TO PROVIDE MOCK-UP OF STAMPED COLORED CONCRETE FOR REVIEW AND APPROVAL BY OWNER.
4. CONCRETE SHALL HAVE MEDIUM BROOM FINISH.
5. CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION NUMBER 32 13 13 CONCRETE PAVING.

BID ALTERNATE NOTES:

- REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF RAISED PLANTER BEDS.
- BID ALTERNATE 3: PLANTER BEDS NORTH OF THE ENGAGEMENT HALL SHALL BE RAISED CONCRETE CURB.

0 20'
1" = 20'

ISSUED FOR BID – NOT FOR CONSTRUCTION

5/20/2025 3:55:53 PM
J:\2024\2403560\CAD\Dwgs\C\2403560_Site_Plan.dwg

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE 203
MCHENRY, IL 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

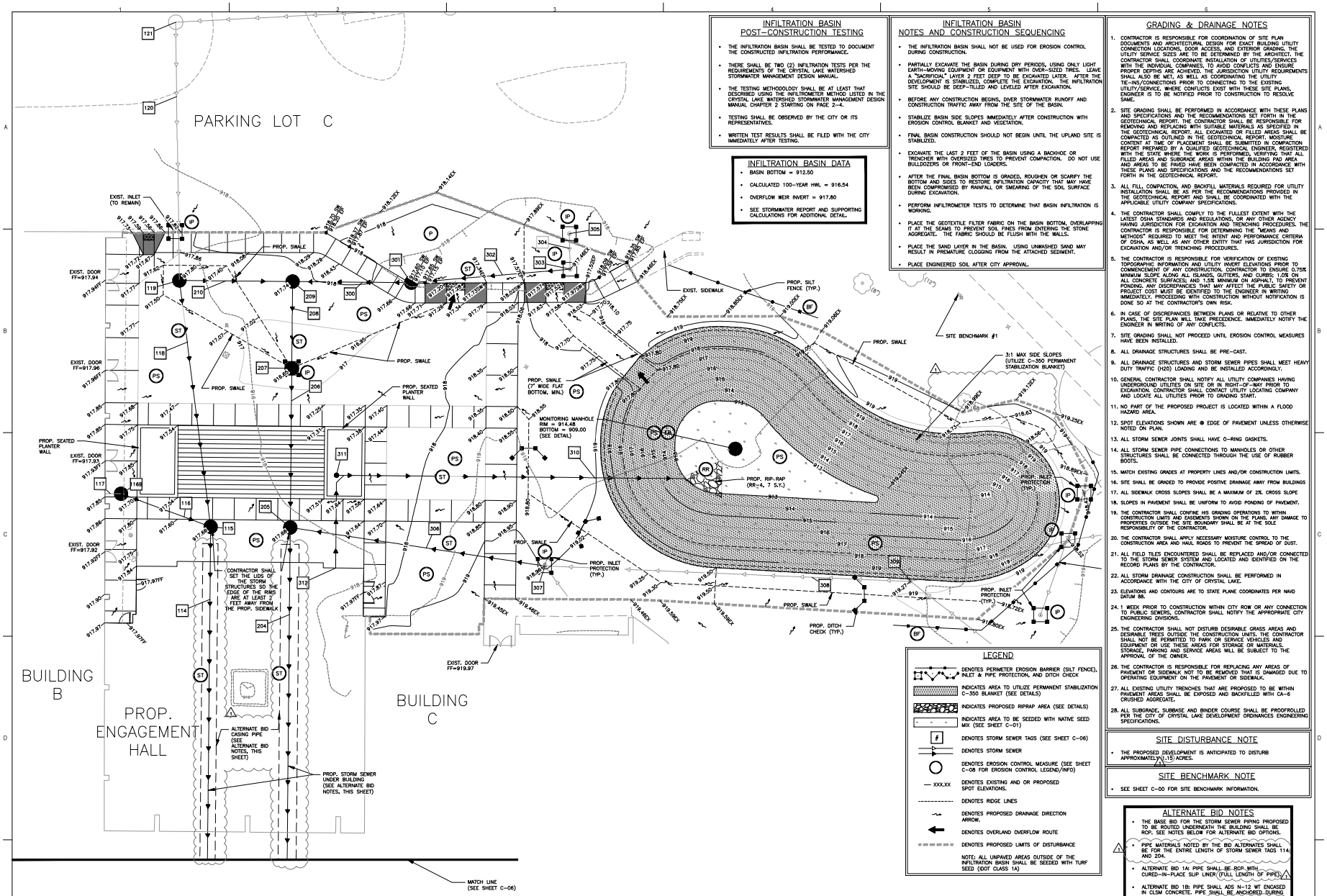
LICENSED PROFESSIONAL ENGINEER
TODD M. RICHARDS
062-058779
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/16/25

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C-04



INFILTRATION BASIN POST-CONSTRUCTION TESTING

- THE INFILTRATION BASIN SHALL BE TESTED TO DOCUMENT THE CONSTRUCTED INFILTRATION PERFORMANCE.
- THERE SHALL BE TWO (2) INFILTRATION TESTS PER THE REQUIREMENTS OF THE CRYSTAL LAKE WATERSHED STORMWATER MANAGEMENT DESIGN MANUAL.
- THE TESTING METHODOLOGY SHALL BE AT LEAST THAT DESCRIBED USING THE INFILTROMETER METHOD LISTED IN THE CRYSTAL LAKE WATERSHED STORMWATER MANAGEMENT DESIGN MANUAL CHAPTER 2 STARTING ON PAGE 2-4.
- TESTING SHALL BE OBSERVED BY THE CITY OR ITS REPRESENTATIVES.
- WRITTEN TEST RESULTS SHALL BE FILED WITH THE CITY IMMEDIATELY AFTER TESTING.

INFILTRATION BASIN DATA

- BASIN BOTTOM = 912.50
- CALCULATED 100-YEAR HWL = 916.54
- OVERFLOW WEIR INVERT = 917.80
- SEE STORMWATER REPORT AND SUPPORTING CALCULATIONS FOR ADDITIONAL DETAIL.

INFILTRATION BASIN NOTES AND CONSTRUCTION SEQUENCING

- THE INFILTRATION BASIN SHALL NOT BE USED FOR EROSION CONTROL DURING CONSTRUCTION.
- PARTIALLY EXCAVATE THE BASIN DURING DRY PERIODS, USING ONLY LIGHT EARTH-MOVING EQUIPMENT OR EQUIPMENT WITH OVER-SIZED TIRES. LEAVE A "SACRIFICIAL" LAYER 2 FEET DEEP TO BE EXCAVATED LATER. AFTER THE DEVELOPMENT IS STABILIZED, COMPLETE THE EXCAVATION. THE INFILTRATION SITE SHOULD BE DEEP-TILLED AND LEVELED AFTER EXCAVATION.
- BEFORE ANY CONSTRUCTION BEGINS, DIVER STORMWATER RUNOFF AND CONSTRUCTION TRAFFIC AWAY FROM THE SITE OF THE BASIN.
- STABILIZE BASIN SIDE SLOPES IMMEDIATELY AFTER CONSTRUCTION WITH EROSION CONTROL BLANKET AND VEGETATION.
- FINAL BASIN CONSTRUCTION SHOULD NOT BEGIN UNTIL THE UPLAND SITE IS STABILIZED.
- EXCAVATE THE LAST 2 FEET OF THE BASIN USING A BACKHOE OR TRENCHER WITH OVERSIZED TIRES TO PREVENT COMPACTION. DO NOT USE BULLDOZERS OR FRONT-END LOADERS.
- AFTER THE FINAL BASIN BOTTOM IS GRADED, ROUGHEN OR SCARIFY THE BOTTOM AND SIDES TO RESTORE INFILTRATION CAPACITY THAT MAY HAVE BEEN COMPROMISED BY RAINFALL OR SMEARING OF THE SOIL SURFACE DURING EXCAVATION.
- PERFORM INFILTROMETER TESTS TO DETERMINE THAT BASIN INFILTRATION IS WORKING.
- PLACE THE GEOTEXTILE FILTER FABRIC ON THE BASIN BOTTOM, OVERLAPPING IT AT THE SEAMS TO PREVENT SOIL FINES FROM ENTERING THE STONE AGGREGATE. THE FABRIC SHOULD BE FLUSH WITH THE WALLS.
- PLACE THE SAND LAYER IN THE BASIN. USING UNWASHED SAND MAY RESULT IN PREMATURE CLOGGING FROM THE ATTACHED SEDIMENT.
- PLACE ENGINEERED SOIL AFTER CITY APPROVAL.

GRADING & DRAINAGE NOTES

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
2. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT.
3. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
4. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
7. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
8. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
9. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
10. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
11. NO PART OF THE PROPOSED PROJECT IS LOCATED WITHIN A FLOOD HAZARD AREA.
12. SPOT ELEVATIONS SHOWN ARE @ EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.
13. ALL STORM SEWER JOINTS SHALL HAVE O-RING GASKETS.
14. ALL STORM SEWER PIPE CONNECTIONS TO MANHOLES OR OTHER STRUCTURES SHALL BE CONNECTED THROUGH THE USE OF RUBBER BOOTS.
15. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
16. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS
17. ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2% CROSS SLOPE
18. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING OF PAVEMENT.
19. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
20. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
21. ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
22. ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CRYSTAL LAKE.
23. ELEVATIONS AND CONTOURS ARE TO STATE PLANE COORDINATES PER NAVD DATUM 88.
24. 1 WEEK PRIOR TO CONSTRUCTION WITHIN CITY ROW OR ANY CONNECTION TO PUBLIC SEWERS, CONTRACTOR SHALL NOTIFY THE APPROPRIATE CITY ENGINEERING DIVISIONS.
25. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
26. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
27. ALL EXISTING UTILITY TRENCHES THAT ARE PROPOSED TO BE WITHIN PAVEMENT AREAS SHALL BE EXPOSED AND BACKFILLED WITH CA-6 CRUSHED AGGREGATE.
28. ALL SUBGRADE, SUBBASE AND BINDER COURSE SHALL BE PROOFROLLED PER THE CITY OF CRYSTAL LAKE DEVELOPMENT ORDINANCES ENGINEERING SPECIFICATIONS.

LEGEND

- DENOTES PERIMETER EROSION BARRIER (SILT FENCE), INLET & PIPE PROTECTION, AND DITCH CHECK
- INDICATES AREA TO UTILIZE PERMANENT STABILIZATION C-350 BLANKET (SEE DETAILS)
- INDICATES PROPOSED RIPRAP AREA (SEE DETAILS)
- INDICATES AREA TO BE SEEDED WITH NATIVE SEED MIX (SEE SHEET C-01)
- DENOTES STORM SEWER TAGS (SEE SHEET C-06)
- DENOTES STORM SEWER
- DENOTES EROSION CONTROL MEASURE (SEE SHEET C-08 FOR EROSION CONTROL LEGEND/INFO)
- XXX.XX DENOTES EXISTING AND OR PROPOSED SPOT ELEVATIONS.
- DENOTES RIDGE LINES
- DENOTES PROPOSED DRAINAGE DIRECTION ARROW.
- DENOTES OVERLAND OVERFLOW ROUTE
- DENOTES PROPOSED LIMITS OF DISTURBANCE

NOTE: ALL UNPAVED AREAS OUTSIDE OF THE INFILTRATION BASIN SHALL BE SEEDED WITH TURF SEED (IDOT CLASS 1A)

SITE DISTURBANCE NOTE

- THE PROPOSED DEVELOPMENT IS ANTICIPATED TO DISTURB APPROXIMATELY 15 ACRES.

SITE BENCHMARK NOTE

- SEE SHEET C-00 FOR SITE BENCHMARK INFORMATION.

ALTERNATE BID NOTES

- THE BASE BID FOR THE STORM SEWER PIPING PROPOSED TO BE ROUTED UNDERNEATH THE BUILDING SHALL BE RCP. SEE NOTES BELOW FOR ALTERNATE BID OPTIONS.
- PIPE MATERIALS NOTED BY THE BID ALTERNATES SHALL BE FOR THE ENTIRE LENGTH OF STORM SEWER TAGS 114 AND 204.
- ALTERNATE BID 1A: PIPE SHALL BE RCP WITH CURED-IN-PLACE SLIP LINER (FULL LENGTH OF PIPE).
- ALTERNATE BID 1B: PIPE SHALL ADS N-12 WT ENCASED IN CLSM CONCRETE. PIPE SHALL BE ANCHORED DURING BACKFILLING WITH CLSM (CLSM FROM NORTH FACE OF ENGAGEMENT HALL TO SOUTH FACE OF MAIN ENTRANCE).
- ALTERNATE BID 1C: PIPE SHALL BE ADS N-12 WT INSIDE OF HOBAS FIBERGLASS PIPE WITH CASING SPACERS. 48" AND 60" DIAMETER CASING PIPES SHALL BE UTILIZED. PIPE CASINGS SHALL BEGIN 5 FEET NORTH OF THE NORTHERN FACE OF THE ENGAGEMENT HALL AND END 20 FEET SOUTH OF THE SOUTHERN FACE OF THE MAIN ENTRANCE (116 LIN. FT. EACH).

0 5' 10'
1" = 10'

ISSUED FOR BID – NOT FOR CONSTRUCTION

5/23/2025 8:21:27 AM
J:\2024\2403560\CAD\Dwgs\C\2403560_Grading_Plan.dwg

dkA

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP/FP/T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320

CIVIL/LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

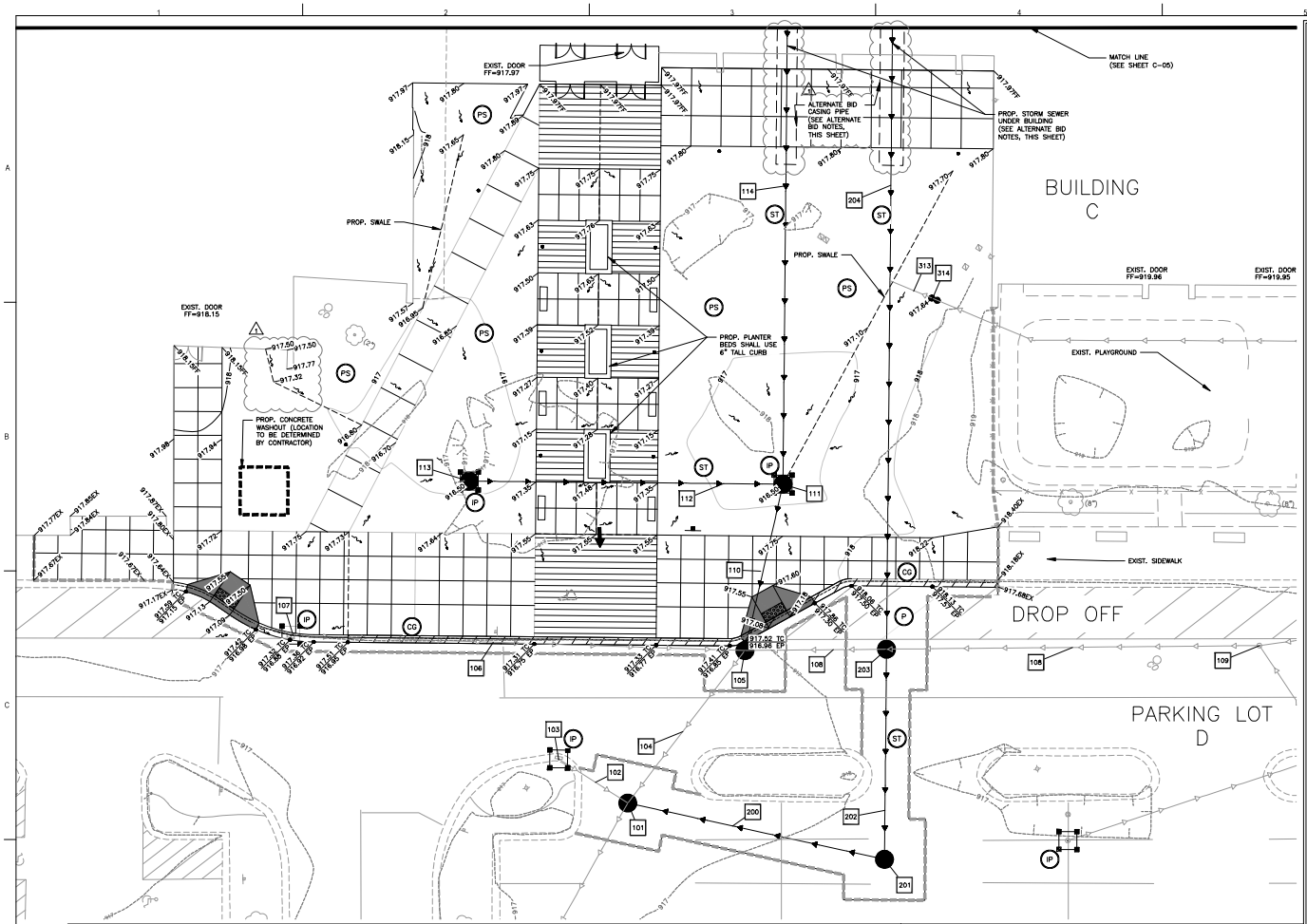


SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/16/25

SHEET TITLE:
GRADING & EROSION CONTROL PLAN - NORTH

SHEET NUMBER:
C-05



GRADING & DRAINAGE NOTES

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
2. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT, ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT.
3. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
4. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
7. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
8. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
9. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
10. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
11. NO PART OF THE PROPOSED PROJECT IS LOCATED WITHIN A FLOOD HAZARD AREA.
12. SPOT ELEVATIONS SHOWN ARE @ EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.
13. ALL STORM SEWER JOINTS SHALL HAVE O-RING GASKETS.
14. ALL STORM SEWER PIPE CONNECTIONS TO MANHOLES OR OTHER STRUCTURES SHALL BE CONNECTED THROUGH THE USE OF RUBBER BOOTS.
15. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
16. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS
17. ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2% CROSS SLOPE
18. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING OF PAVEMENT.
19. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
20. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
21. ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
22. ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CRYSTAL LAKE.
23. ELEVATIONS AND CONTOURS ARE TO STATE PLANE COORDINATES PER NAVD DATUM 88.
24. 1 WEEK PRIOR TO CONSTRUCTION WITHIN CITY ROW OR ANY CONNECTION TO PUBLIC SEWERS, CONTRACTOR SHALL NOTIFY THE APPROPRIATE CITY ENGINEERING DIVISIONS.
25. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OR MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
26. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
27. ALL EXISTING UTILITY TRENCHES THAT ARE PROPOSED TO BE WITHIN PAVEMENT AREAS SHALL BE EXPOSED AND BACKFILLED WITH CA-6 CRUSHED AGGREGATE.
28. ALL SUBGRADE, SUBBASE AND BINDER COURSE SHALL BE PROOFROLLED PER THE CITY OF CRYSTAL LAKE DEVELOPMENT ORDINANCES ENGINEERING SPECIFICATIONS.

LEGEND

- DENOTES PERIMETER EROSION BARRIER (SILT FENCE), INLET & PIPE PROTECTION, AND DITCH CHECK
- INDICATES AREA TO UTILIZE PERMANENT STABILIZATION C-350 BLANKET (SEE DETAILS)
- INDICATES PROPOSED RIPRAP AREA (SEE DETAILS)
- INDICATES AREA TO BE SEEDED WITH NATIVE SEED MIX (SEE SHEET C-01)
- # DENOTES STORM SEWER TAGS (SEE THIS SHEET)
- DENOTES STORM SEWER
- DENOTES EROSION CONTROL MEASURE (SEE SHEET C-08 FOR EROSION CONTROL LEGEND/INFO)
- XXX.XX DENOTES EXISTING AND OR PROPOSED SPOT ELEVATIONS.
- DENOTES RIDGE LINES
- DENOTES PROPOSED DRAINAGE DIRECTION ARROW.
- DENOTES OVERLAND OVERFLOW ROUTE
- DENOTES PROPOSED LIMITS OF DISTURBANCE

NOTE: ALL UNPAVED AREAS OUTSIDE OF THE INFILTRATION BASIN SHALL BE SEEDED WITH TURF SEED (IDOT CLASS 1A)

STORM TAGS (100 SERIES)

- ST-101 STM SWR MH 7' DIA., R-1713, CL RIM = 916.30 INV = 910.37 W/S 36" RCP INV = 911.50 N 12" RCP INV = 910.37 E 24" RCP (CORED) CONTRACTOR TO FIELD VERIFY EXIST. PIPE INVERTS PRIOR TO ORDERING MATERIALS AND NOTIFY ENGINEER
- ST-102 EX SS RCP, 12"
- ST-103 EXIST. CURB INLET RIM = 916.11 INV = 911.50 E 12" RCP
- ST-104 EX SS RCP, 36"
- ST-105 STM SWR MH 7' DIA., R-1713, CL RIM = 916.90 INV = 911.62 NW/S 36" RCP INV = 911.87 SW 12" RCP INV = 911.57 NE 18" RCP
- ST-106 EX SS RCP, 12"
- ST-107 EXIST. CURB INLET RIM = 916.88 INV = 912.55 NE 12" RCP
- ST-108 EX SS RCP, 18" PIPE CUT TO INSERT MH SEE TAG 203
- ST-109 EXIST. MH TOP = 917.72 INV = 912.52 SW 18" RCP INV = 912.62 NE 12" RCP INV = UNKNOWN SE 12" RCP
- ST-110 29 LIN FT SS RCP, 36" @ 0.45%
- ST-111 STM SWR MH 7' DIA., R-2504 TY A GRATE RIM = 916.50 INV = 911.76 NW/SE 36" RCP INV = 912.76 W 12" RCP
- ST-112 61 LIN FT SS RCP, 12" @ 0.48%
- ST-113 STM SWR CB 2' DIA., R-2504 TY D GRATE RIM = 916.50 INV = 913.05 E 12" RCP
- ST-114 182 LIN FT SS RCP, 36" @ 0.30%
- ST-115 STM SWR MH 5' DIA., R-1713, CL RIM = 917.66 INV = 912.31 NW/S 36" RCP INV = 912.45 W 12" RCP
- ST-116 21 LIN FT SS RCP, 12" @ 1.00% CONTRACTOR TO FIELD VERIFY TAG 117 PIPE SIZE, MATERIAL, INVERT, AND LOCATION PRIOR TO ORDERING MATERIALS AND NOTIFY ENGINEER
- ST-116B STM SWR MH 4' DIA., R-1713, CL RIM = 917.66 INV = 912.66 W/SE 12" RCP CONNECT TO TAG 117 CONTRACTOR TO FIELD VERIFY TAG 117 SEE TAG 116 NOTES
- ST-117 EX SS, 12" (MATERIAL UNKNOWN) SEE TAG 116 NOTES ABOVE
- ST-118 53 LIN FT SS RCP, 36" @ 0.30%
- ST-119 STM SWR MH 6' DIA., R-1713, CL RIM = 917.80 INV = 912.50 SE 36" RCP INV = 912.50 NW 24" RCP (FIELD VERIFY) INV = 912.50 NE 24" RCP
- ST-120 EX SS RCP, 24"
- ST-121 EXIST. MH TOP = 918.47 INV = 912.77 SE 18" RCP INV = 913.37 SW 12" RCP INV = 913.12 NE 18" RCP INV = 914.27 NW 18" RCP

STORM TAGS (200 SERIES)

- ST-200 48 LIN FT SS RCP, 24" @ 0.63%
- ST-201 STM SWR MH 7' DIA., R-1713, CL RIM = 917.22 INV = 910.67 SW 24" RCP INV = 910.67 NW 48" RCP
- ST-202 37 LIN FT SS RCP, 48" @ 0.30%
- ST-203 STM SWR MH 7' DIA., R-1713, CL RIM = 917.27 INV = 910.78 SW/INW 48" RCP INV = 911.81 SW 18" RCP (EXISTING) INV = 911.87 NE 18" RCP (EXISTING) CONTRACTOR TO FIELD VERIFY PIPE INVERTS PRIOR TO ORDERING MATERIALS AND NOTIFY ENGINEER (SEE TAG 108)
- ST-204 215 LIN FT SS RCP, 48" @ 0.30%
- ST-205 STM SWR MH 7' DIA., R-1713, CL RIM = 917.68 INV = 911.42 NW/SE 48" RCP INV = 911.42 E 15" RCP
- ST-206 37 LIN FT SS RCP, 48" @ 0.30%
- ST-207 STM SWR MH 7' DIA. WITH FOUR (4) R-4341-A GRATES (SEE DETAIL) RIM = 916.65 INV = 911.53 NW/SE 48" RCP
- ST-208 17 LIN FT SS RCP, 48" @ 0.35%
- ST-209 STM SWR MH 7' DIA., R-1713, CL RIM = 917.98 INV = 911.39 SE 48" RCP INV = 911.85 SW/NE 24" RCP
- ST-210 25 LIN FT SS RCP, 24" @ 2.60%

STORM TAGS (300 SERIES)

- ST-300 27 LIN FT SS RCP, 24" @ 1.11%
- ST-301 STM SWR CB 4' DIA., R-3281 TY A GRATE RIM = 917.10 INV = 912.15 SW/NE 24" RCP
- ST-302 40 LIN FT SS RCP, 24" @ 4.15%
- ST-303 EXIST. INLET RIM = 917.46 INV = 913.81 SW 24" RCP (CORED) INV = 914.16 NW 12" RCP
- ST-304 EX SS RCP, 12"
- ST-305 EXIST. INLET RIM = 917.64 INV = 914.23 SE 12" RCP
- ST-306 66 LIN FT SS RCP, 15" @ 1.35%
- ST-307 EXIST. MH RIM = 918.96 INV = 912.31 SW 15" RCP (CORED) INV = 912.31 NE 15" RCP INV = 914.56 SE 10" RCP
- ST-308 EX SS RCP, 15"
- ST-309 EXIST. MH (RAISE RIM TO FG) EX RIM = 919.09 PR RIM = 919.27 INV = 913.06 W/SE 15" RCP INV = 913.06 E 12" RCP
- ST-310 96 LIN FT SS PVC, ROOF DRAIN 10" SDR 26 @ 0.65% INV @ BASIN= 913.00
- ST-311 CLEANOUT RIM = 917.95 INV = 913.62
- ST-312 26 LIN FT SS PVC, ROOF DRAIN 10" SDR 26 @ 0.62% INV @ SP-310= 913.61 INV @ BLDG= 913.77 INSTALL 6" TO 10" ADAPTER TO CONNECT TO 6" PIPE WITHIN BUILDING
- ST-313 EX 4" PVC UNDERDRAIN @ 0.30% (ESTIMATED) CORE CONNECTION INTO TAG 204 WITH 2 LIN FT RISER @ 11.1 SLOPE INV @ 204 = 913.48 CONTRACTOR TO FIELD VERIFY EXIST. PIPE SIZE, DEPTH, AND LOCATION PRIOR TO ORDERING MATERIALS
- ST-314 DOUBLE CLEANOUT RIM = 917.64 INV = 913.51 INSERT CLEANOUT ONTO TAG 313 CONTRACTOR TO FIELD VERIFY EXIST. PIPE SIZE, DEPTH, AND LOCATION PRIOR TO ORDERING MATERIALS

ALTERNATE BID NOTES

- THE BASE BID FOR THE STORM SEWER PIPING PROPOSED TO BE ROUTED UNDERNEATH THE BUILDING SHALL BE RCP. SEE NOTES BELOW FOR ALTERNATE BID OPTIONS.
- PIPE MATERIALS NOTED BY THE BID ALTERNATES SHALL BE FOR THE ENTIRE LENGTH OF STORM SEWER TAGS 114 AND 204.
- ALTERNATE BID 1A: PIPE SHALL BE RCP WITH CURED-IN-PLACE SLIP LINER (FULL LENGTH OF PIPE).
- ALTERNATE BID 1B: PIPE SHALL ADS N-12 WT ENCASED IN CLSM CONCRETE. PIPE SHALL BE ANCHORED DURING BACKFILLING WITH CLSM (CLSM FROM NORTH FACE OF ENGAGEMENT HALL TO SOUTH FACE OF MAIN ENTRANCE).
- ALTERNATE BID 1C: PIPE SHALL BE ADS N-12 WT INSIDE OF HOBAS FIBERGLASS PIPE WITH CASING SPACERS. 48" AND 60" DIAMETER CASING PIPES SHALL BE UTILIZED. PIPE CASINGS SHALL BEGIN 5 FEET NORTH OF THE NORTHERN FACE OF THE ENGAGEMENT HALL AND END 20 FEET SOUTH OF THE SOUTHERN FACE OF THE MAIN ENTRANCE (116 LIN. FT. EACH).

SITE BENCHMARK NOTE

- SEE SHEET C-00 FOR SITE BENCHMARK INFORMATION.

SITE DISTURBANCE NOTE

- THE PROPOSED DEVELOPMENT IS ANTICIPATED TO DISTURB APPROXIMATELY 1.16 ACRES.

ISSUED FOR BID – NOT FOR CONSTRUCTION

0 10' 1" = 10'

5/23/2025 8:21:27 AM
J:\2024\2403560\CAD\Dwgs\C\2403560_Grading_Plan.dwg

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL, 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.,
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

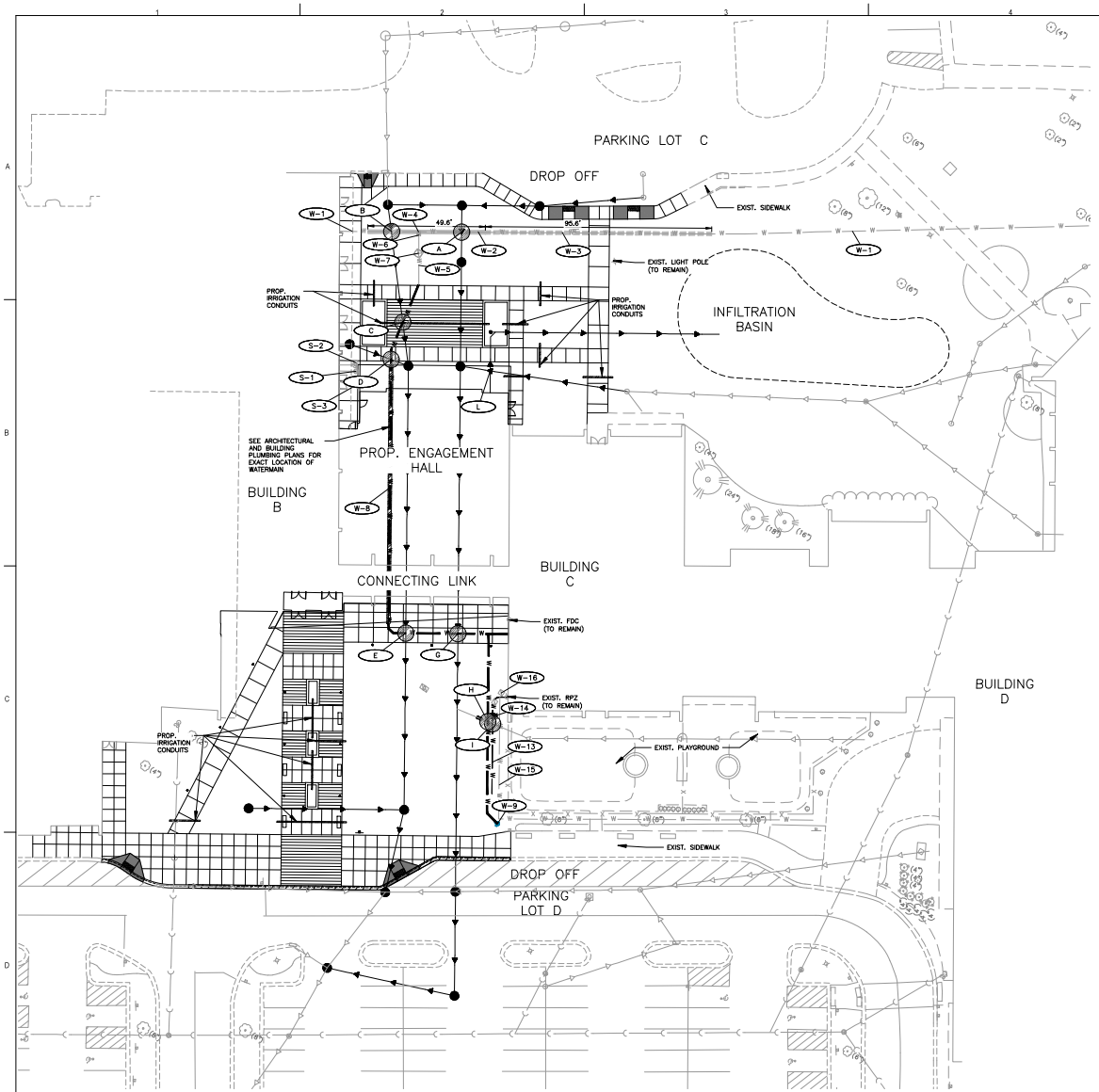
LICENSED PROFESSIONAL ENGINEER — TODD M. RICHARDS — 062-058779 — STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/16/25

SHEET TITLE:
GRADING & EROSION CONTROL PLAN - SOUTH

SHEET NUMBER:
C-06



ONSITE WATERLINE NOTES:

- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
- ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED AUXILIARY GATE VALVE.
- ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE. SEE SITE WORK SPECIFICATIONS.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
- CONTRACTOR SHALL COORDINATE WITH CITY PUBLIC WORKS TO SCHEDULE WATER SERVICE SHUTOFF FOR PROPOSED WATER MAIN WORK.

PROJECT LEGEND:

- DENOTES MAINTAIN 18" VERTICAL SEPARATION PER TO IEPA'S REQUIREMENTS
- S-# DENOTES SANITARY SEWER TAG
- W-# DENOTES WATER MAIN TAG
- A DENOTES CONFLICT TAG
- DENOTES WATER MAIN CASING PIPE
- DENOTES ESTIMATED LENGTH OF PIPE LOWERING
- DENOTES ESTIMATED LENGTH OF PIPE INSULATION

NOTE: THE REQUIRED LENGTHS OF PIPE LOWERING AND PIPE INSULATION ARE DEPENDENT UPON THE SIZE/LOCATION/DEPTH OF THE EXISTING UTILITIES. CONTRACTOR SHALL FIELD VERIFY EXIST. UTILITY INFORMATION AND NOTIFY ENGINEER PRIOR TO ORDERING MATERIALS.

UTILITY NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. MAINTAIN A MINIMUM OF 6.0' COVER OVER ALL WATER MAINS & SERVICES.
5. MAINTAIN A MINIMUM OF 3.5' COVER OVER ALL SANITARY SERVICES.
6. ADJUST ALL MANHOLES AND FRAMES TO FINISHED GRADES.
7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE IEPA STANDARDS.
8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY/STORM SEWER AND WATER MAIN. (PER IEPA STANDARDS)
9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND PUBLIC WATER MAINS. (PER IEPA STANDARDS)
10. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
11. LOCATION OF SITE UTILITIES SHALL BE VERIFIED WITH PROPER UTILITY COMPANY PROVIDING SERVICE.
12. MATERIAL PERMITTED FOR USE AS SANITARY SEWER PIPES IS PVC SDR 26 FOR 4" AND 6".
13. ALL SANITARY SEWER CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE CITY OF CRYSTAL LAKE.
14. ALL CONNECTIONS TO PUBLIC SANITARY MANHOLES SHALL BE CORE DRILLED.
15. ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CRYSTAL LAKE.
16. ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
17. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
18. PROVIDE UNDERDRAINS FROM SEEPS OR SPRINGS ENCOUNTERED. EXTEND TO STORM SEWER SYSTEM OR DAYLIGHT AT THE BOTTOM OF THE FILL SLOPE.
19. ALL PROPOSED PIPE CONNECTIONS TO EXISTING OR PROPOSED MANHOLES SHALL CONFORM TO ASTM-C923.
20. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
21. GENERAL CONTRACTOR SHALL HAVE APPROVAL FROM ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
22. ALL BUILDING UTILITY SERVICE LOCATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION.
23. ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
24. CONTRACTOR TO COORDINATE W/ COLLEGE PRIOR TO CLOSING ANY PORTIONS OF ANY ADJACENT ACCESS DRIVES OR PARKING LOT.
25. MATERIAL FOR WATER SERVICES SHALL BE PVC C-900.

A CONFLICT TAGS

- A — STORM SEWER TAG ST-208 BOP = 911.15 EXIST. 8" WATER MAIN TOP = 909.65 VERT SEP = 1.50' MIN. CONTRACTOR TO FIELD VERIFY WATER MAIN SIZE AND DEPTH LOWERING REQ'D
- D — STORM SEWER TAG ST-110 BOP = 912.14 EXIST. 8" WATER MAIN TOP = 910.64 VERT SEP = 1.50' MIN. CONTRACTOR TO FIELD VERIFY WATER MAIN SIZE AND DEPTH LOWERING REQ'D
- C — STORM SEWER TAG ST-118 BOP = 912.02 WATER TAG 8 TOP = 910.52 VERT SEP = 1.50' MIN. LOWERING REQ'D
- D — STORM SEWER TAG ST-116 BOP = 912.34 WATER TAG 8 TOP = 910.84 VERT SEP = 1.50' MIN. LOWERING REQ'D
- E — STORM SEWER TAG ST-114 BOP = 911.64 WATER TAG 8 TOP = 910.14 VERT SEP = 1.50' MIN. LOWERING REQ'D
- F — OMITTED
- G — STORM SEWER TAG ST-204 BOP = 910.68 WATER TAG 8 TOP = 909.18 VERT SEP = 1.50' MIN. LOWERING REQ'D
- H — STORM SEWER TAG ST-513 BOP = 915.52 WATER TAG 9 TOP = 911.89 VERT SEP = 3.63'
- I — STORM SEWER TAG ST-513 BOP = 915.53 WATER TAG 9 TOP = 911.28 VERT SEP = 4.25'
- J — OMITTED
- K — OMITTED
- L — STORM SEWER TAG ST-512 BOP = 913.71 STORM SEWER TAG ST-306 TOP = 912.98 VERT SEP = 0.73'

W-# WATER TAGS

- W-1 — EXIST. 8" WATER MAIN CONTRACTOR TO FIELD VERIFY PIPE LOCATION, DEPTH, AND MATERIAL AND NOTIFY ENGINEER
- W-2 — LOWER 8" WATER MAIN BELOW PROPOSED STORM SEWER AND PROVIDE PROTECTION PER IEPA STANDARDS
- W-3 — CONTRACTOR TO FIELD VERIFY LOCATION/DEPTH OF EXIST. WATER MAIN. INSULATE PIPE IF FINISHED GRADE ELEVATION WILL RESULT IN LESS THAN 6.0 FEET OF COVER OVER TOP OF PIPE
- W-4 — RECONNECT TAG W-3 TO LOWERED SECTION OF PIPE AT TEE (SEE TAG W-2)
- W-5 — EXIST. 8" WATER MAIN CONTRACTOR TO FIELD VERIFY PIPE LOCATION, DEPTH, AND MATERIAL AND NOTIFY ENGINEER
- W-6 — EXIST. WATER VALVE (ADJUST RIM) EX RIM = 917.78 PR RIM = 917.10
- W-7 — EXIST. C-BOX (ADJUST RIM) EX RIM = 917.75 PR RIM = 917.12
- W-8 — 199 LIN FT WATER MAIN, 8" PVC C-900 W/ 22.5° and 45° BENDS CONNECT TO TAG W-5 PIPE SHALL BE EXCASED BY 15" PVC SDR-26 PIPE USING CCS-IR CASING SPACERS 109 LIN FT CASING PIPE
- W-8 — PROP. MUELLER CENTURION 250 FIRE HYDRANT & AUX. VALVE WITH 169 LIN FT PVC C-900 LEAD PIPE, CONNECT TO TAG W-8 WITH 8x6x8 RIM = 918.55
- W-10 — OMITTED
- W-11 — OMITTED
- W-12 — OMITTED
- W-13 — 127 LIN FT IRRIGATION LINE 1.5" TYPE K COPPER WATER SERVICE CONNECT TO EXIST. RPZ
- W-14 — 1.5" C-BOX RIM = 917.95
- W-15 — EXIST. IRRIGATION LINE (TO REMAIN)
- W-16 — EXIST. IRRIGATION BLOWOUT PORT (TO REMAIN)

S-# SANITARY SEWER TAGS

- S-1 — EXIST. GREASE TRAP (TO REMAIN) RIM = 917.77 INV = 915.45 (TOP OF 4" PVC)
- S-2 — EXIST. CLEAN OUT (TO REMAIN) RIM = 917.80
- S-3 — EXIST. CLEAN OUT (TO REMAIN) RIM = 917.75

ISSUED FOR BID – NOT FOR CONSTRUCTION

0 20' 1" = 20'

5/21/2025 9:45:19 AM
J:\2024\2403560\CAD\Dwgs\C\2403560_Utility_Plan.dwg

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL, 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

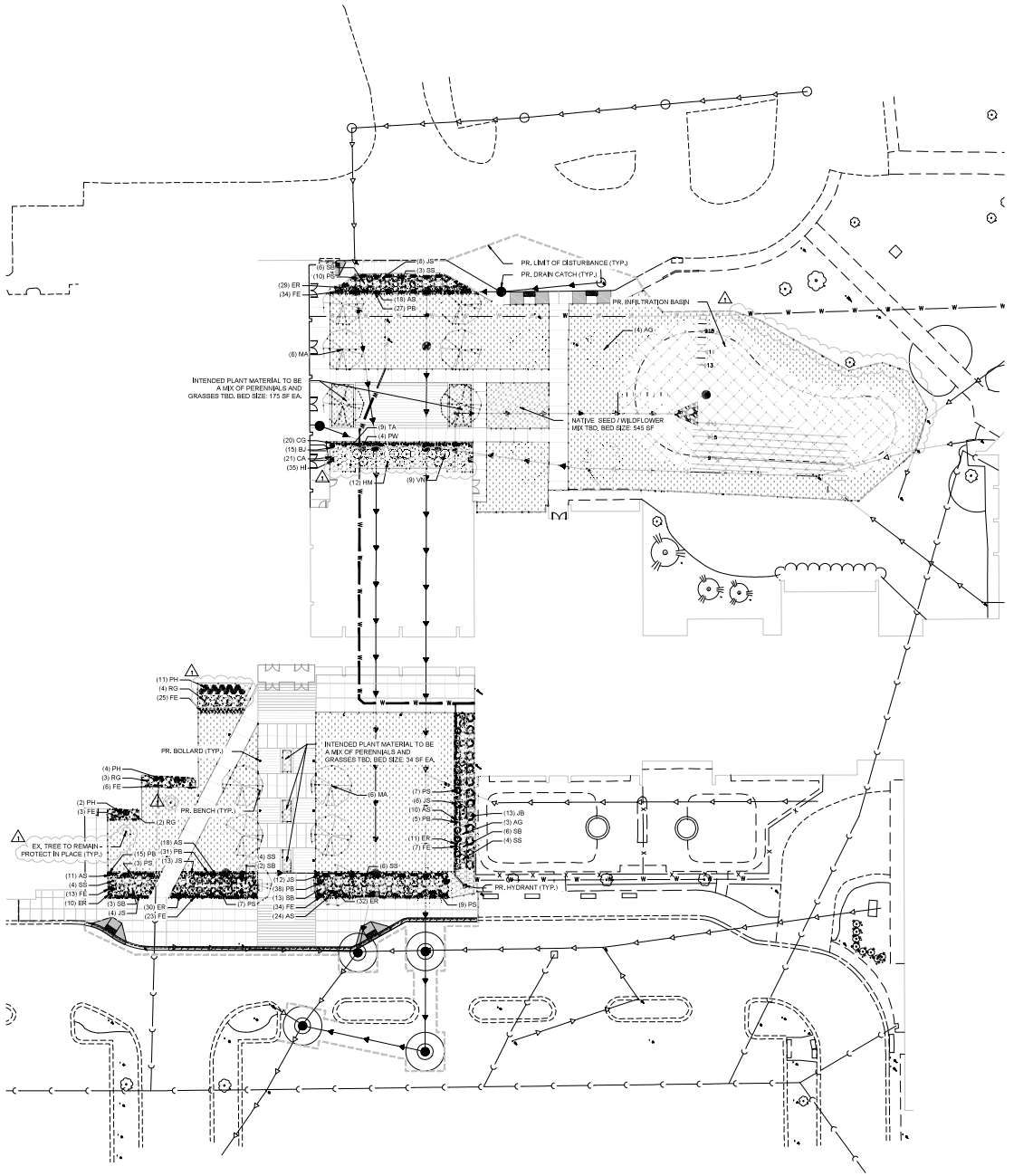
TODD M. RICHARDS 062-058779 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/07/25

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C-07



PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	PLANTING SIZE
DECIDUOUS TREES				
	AG	7	ACER GINNALA AMUR MAPLE	2.5" CAL.
ORNAMENTAL TREES				
	MA	12	MALUS SIEBOLDII JAPANESE CRABAPPLE	2.5" CAL.
SYMBOL	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**
DECIDUOUS SHRUBS				
	HM	12	HYDRANGEA QUERCIFOLIA 'MUNCHKIN' MUNCHKIN OAKLEAF HYDRANGEA	5 GAL.
	RG	9	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	5 GAL.
	SS	21	SPIRAEA JAPONICA 'LITTLE PRINCESS' LITTLE PRINCESS JAPANESE SPIREA	5 GAL.
	SB	30	SYRINGA X 'BAILBELLE' TINKERBELLE® LILAC	5 GAL.
	VN	9	VIBURNUM OPULUS 'NANUM' DWARF EUROPEAN CRANBERRYBUSH	5 GAL.
EVERGREEN SHRUBS				
	JB	13	JUNIPERUS SCOPULORUM 'BLUE ARROW' BLUE ARROW JUNIPER	5 GAL.
	JS	43	JUNIPERUS SQUAMATA 'BLUE STAR' BLUE STAR JUNIPER	5 GAL.
	PS	36	PINUS MUGO 'SLOWMOUND' SLOWMOUND MUGO PINE	5 GAL.
	PW	4	PINUS STROBUS 'BLUE SHAG' BLUE SHAG WHITE PINE	5 GAL.
	TA	9	THUJA OCCIDENTALIS 'ANNA VAN VLOTEN' ANNA'S MAGIC BALL® ARBORVITAE	5 GAL.
GRASSES				
	CA	21	CAREX COMANS 'AMAZON MIST' AMAZON MIST COLORGRASS® HAIR SEDGE	1 GAL.
	CG	20	CAREX GLAUCA BLUE SEDGE	1 GAL.
	FE	145	FESTUCA GLAUCA 'ELIJAH BLUE' ELIJAH BLUE FESCUE	1 GAL.
	PH	17	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	1 GAL.
	PB	116	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY' LITTLE BUNNY FOUNTAIN GRASS	1 GAL.
PERENNIALS				
	AS	81	ARTEMISIA SCHMIDTIANA 'SILVER MOUND' SILVER MOUND ARTEMISIA	1 GAL.
	BJ	15	BRUNNERA MACROPHYLLA 'JACK FROST' JACK FROST SIBERIAN BUGLOSS	1 GAL.
	ER	112	ECHINACEA X 'BALEVDEEN' EVOLUTION™ COLORIFIC™ CONEFLOWER	1 GAL.
	HI	35	HELLEBORUS X GLANDORFENSIS 'COSEH 4200' ICE'N' ROSES® ROSE HELLEBORE	1 GAL.

GROUND COVERS		
	3,701 SF	1-1/2" ROCK MULCH
	6,025 SF	DETENTION SEEDING
	15,573 SF	TURF SOD
	999 SF	WOOD MULCH

0 20'
1" = 20'

ISSUED FOR BID – NOT FOR CONSTRUCTION

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL. 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL. 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL

8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012

DKA PROJECT NO: 24 - 027

KEY PLAN:

SHEET STATUS: 05/16/2025

ISSUED FOR BID - NOT FOR CONSTRUCTION

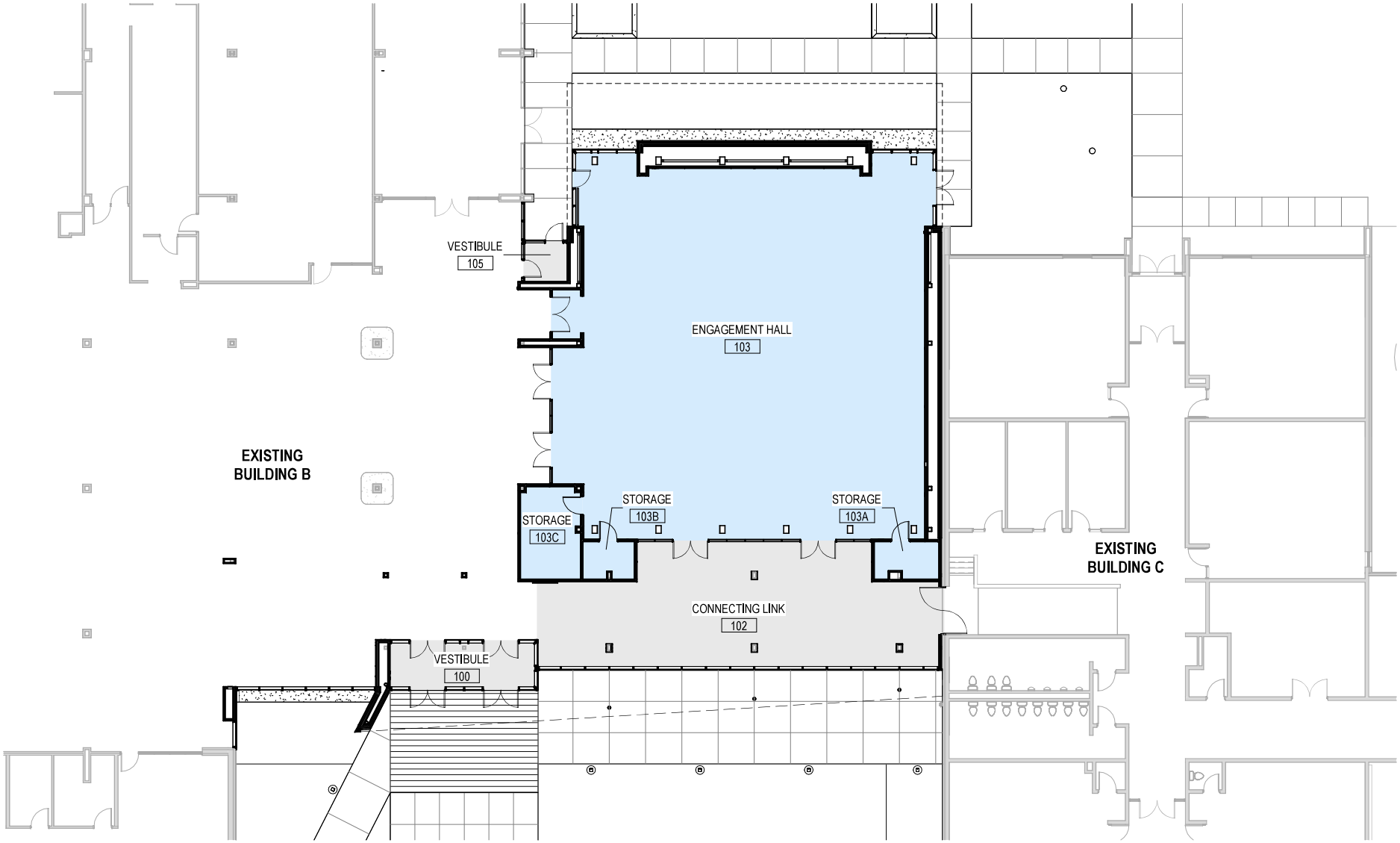
NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	06/01/25

SHEET TITLE:

OVERALL LANDSCAPE PLAN

SHEET NUMBER:

L-100



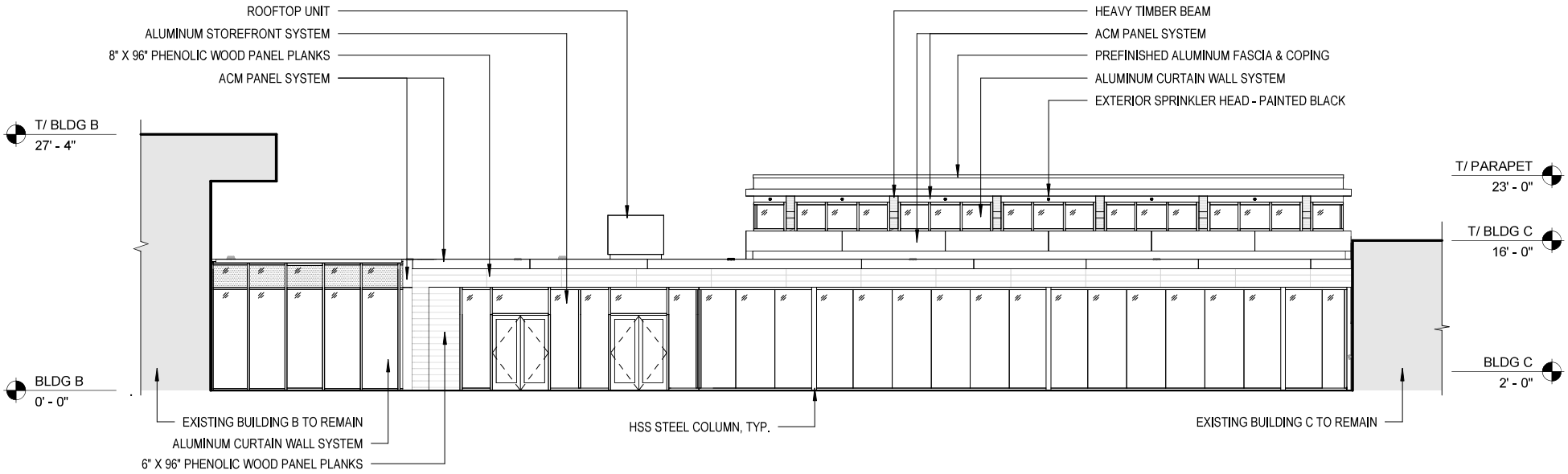
DEMONICA KEMPER ARCHITECTS

Overall Floor Plan

1/16" = 1'-0"

Engagement Hall

McHenry County College





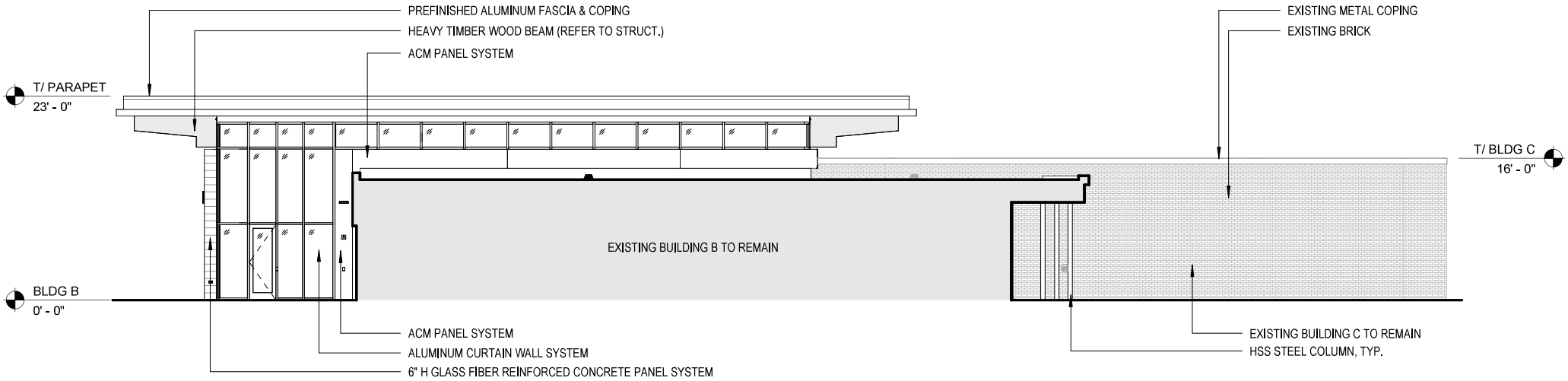
DEMONICA KEMPER ARCHITECTS

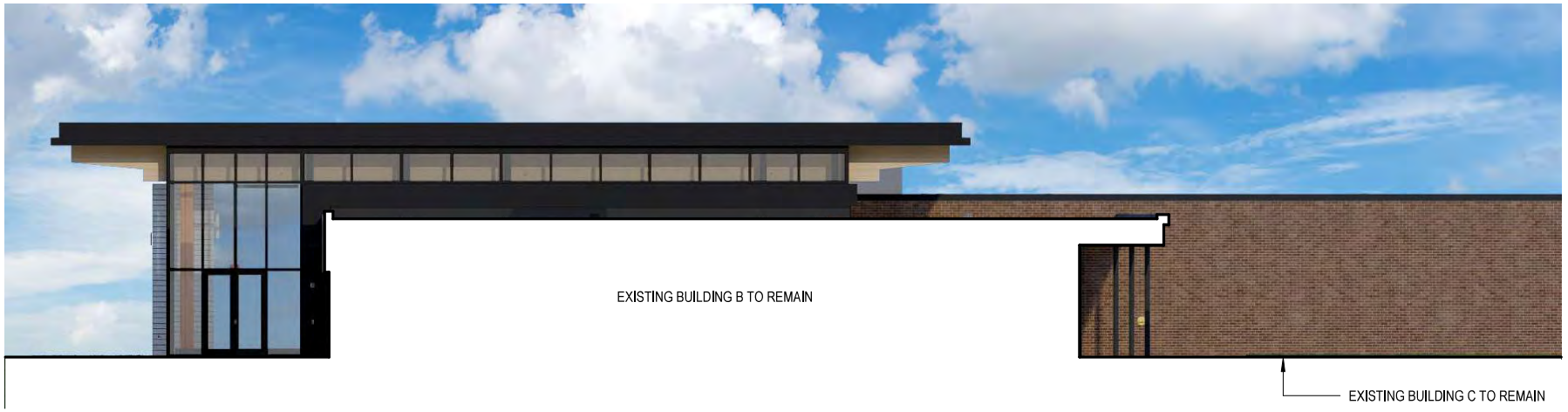
Exterior Elevation - South

3/32" = 1'-0"

Engagement Hall

McHenry County College





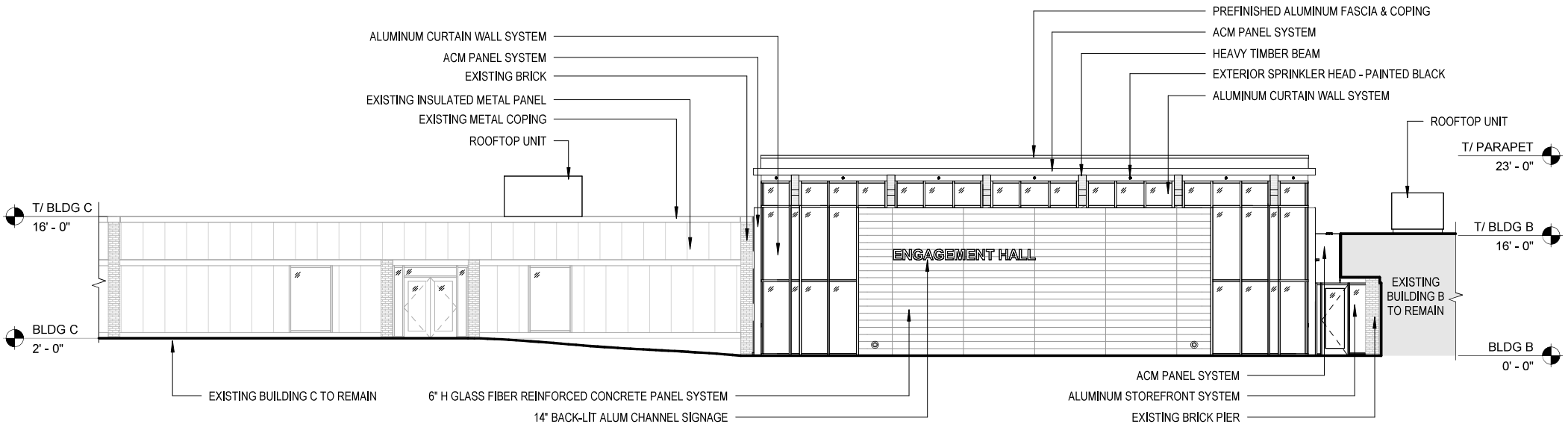
DEMONICA KEMPER ARCHITECTS

Exterior Elevation - West

3/32" = 1'-0"

Engagement Hall

McHenry County College





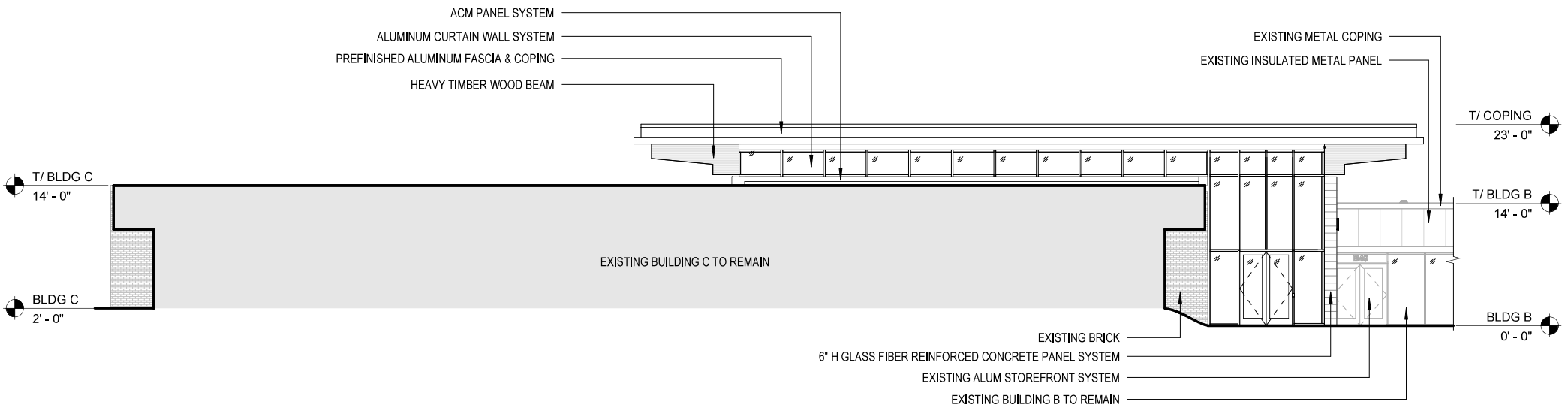
DEMONICA KEMPER ARCHITECTS

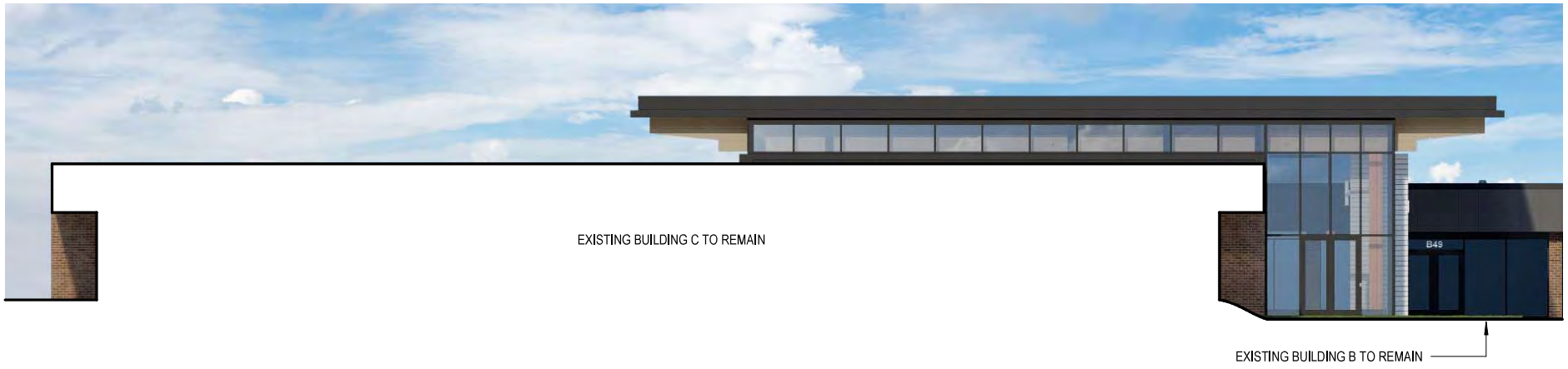
Exterior Elevation - North

3/32" = 1'-0"

Engagement Hall

McHenry County College





DEMONICA KEMPER ARCHITECTS

Exterior Elevation - East

3/32" = 1'-0"

Engagement Hall

McHenry County College

Agenda Item No: 16

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: Bid Award – Police Department Women's Locker Room Expansion and Evidence Storage Relocation

Staff Recommendation: Motion to award the bid for the Police Department Women's Locker Room Expansion and Evidence Storage Relocation to the lowest responsive and responsible bidder, Manusos General Contracting, Inc., and adopt a Resolution authorizing the City Manager to execute a contract with Manusos General Contracting, Inc. in the amount of $267,331.00, execute change orders for up to 10% of the contract amount, and approve warranted completion date change orders relating to the contract

Staff Contact: Michael Magnuson, P.E., Director of Public Works and Engineering

---

Background:
The 2004 expansion of City Hall identified the need for future office space and included the construction of an unfinished second floor above the current Police Department and Information Technology (IT) Department. In 2024, the City contracted Wold Architects and Engineers to develop schematic design alternatives for remodeling and reconfiguring the 2004 building areas to accommodate the growing Police Department staff. The outcome of this study was a multi-year plan to relocate the IT Department to the second floor, expand the Police Department into the existing IT space on the first floor, and remodel other areas of the Police Department and the City Hall basement to meet the needs of the Police Department.

The remodeling and expansion of the Police Department's women's locker room, along with the reconfiguration of evidence storage, comprise the first phase of this project. The existing women's locker room is smaller than the men's locker room. Future needs and anticipated staffing levels of the Police Department will require a larger women's locker room. The existing locker room will be expanded in the current evidence storage. Existing Police Department storage in the basement will be reconfigured to accommodate the relocated evidence storage. The second phase of the overall Police Department/ Information Technology Department Relocation project is currently in design, with construction proposed in the Capital Improvement Plan.

Staff followed the City's procurement policies and advertised for bids in the newspaper and on QuestCDN, a web-based bid solicitation service that attracts local and national vendors and contractors. On August 7, 2025, staff publicly opened and read aloud bids received for Police Department Women's Locker Room Expansion and Evidence Storage Relocation. The breakdown of bids is as follows:

Bidder	Bid Total
√ **Manusos General Contracting, Inc.** Fox Lake, IL	$267,331.00
Stenstrom Construction Group Rockford, IL	$269,900.00
Carmichael Construction, Inc. Marengo, IL	$273,000.00
F.H. Paschen S.N. Nielsen & Assoc., LLC Chicago, IL	$284,000.00
Boller Construction Company, Inc. Waukegan, IL	$322,100.00
Kandu Construction, Inc. Skokie, IL	$333,000.00
Blue Reef, LLC Chicago, IL	$385,500.00

√ Indicates recommended lowest responsive and responsible bidder

The Fiscal Year 2025 Budget includes several facility projects. The table below identifies recently bid projects, the budgeted amount, contract amount and the difference (above or below budget.) While this project is over the budgeted amount, there is savings from other budgeted projects allowing for this project to proceed.

Project	Approved Budget	Contract Amount	Difference
PD locker room expansion, evidence storage	$135,960.00	$267,331.00	-$131,371.00
PW Garage Floor replacement Phase 3	$500,000.00	$327,600.00	+$172,400.00
Municipal Center Duct Cleaning (final phase)	$150,000.00	$16,000.00	+$134,000.00
Total Surplus (+) / Deficit (-)			+$175,029.00

Bids prices in 2025 have been volatile. During times of inflation or material shortages, there have been consistent, identifiable, increase in prices. These issues can be factored into estimates for budgets. 2025 however, has been a year with bid results swinging between under budget and over budget on a wide variety of projects. This has made it very difficult to estimate project costs. The bids for this project have a variance of $118,169 (44%) between the low and high bidders.

Recommendation:

The Public Works Department has reviewed all bids received for completeness and accuracy, in accordance with the invitation to bid document. Based on this assessment, City staff recommends awarding the Police Department Women's Locker Room Expansion and Evidence Storage Relocation contract to the lowest responsive and responsible bidder, Manusos General Contracting, Inc., in the amount of $267,331.00. The City has previously worked with Manusos General Contracting, Inc. and has been satisfied with their service.

This contract is being presented pursuant to a competitive bidding process. Under such process, the contract is to be awarded to the "lowest responsive and responsible bidder." The lowest responsive and responsible bidder is the contractor: (i) whose bid substantially conforms to the material provisions of the bid specifications, (ii) who demonstrates the financial capacity and ability to undertake and complete the project in question in accordance with bid specifications, and (iii) whose bid price is lowest among the responsive and responsible bidders. Selecting a contractor on bases not set forth in the bid specifications can lead to challenges to the City's award.

Votes Required to Pass:

Simple Majority

RESOLUTION

WHEREAS the CITY has determined that it is necessary to remodel and expand the Police Department's women's locker room and reconfigure the evidence storage room as part of the overall Police Department Administration Remodel and Information Technology Department Relocation Project; and

WHEREAS the CITY received and publicly opened bids for the Police Department Women's Locker Room Expansion and Evidence Storage Relocation on August 7, 2025; and

WHEREAS the lowest responsive and responsible bidder Manusos General Contracting, Inc., Fox Lake, Illinois.

NOW THEREFORE BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CRYSTAL LAKE that the foregoing recitals are repeated and incorporated as though fully set forth herein; and

BE IT FURTHER RESOLVED that the City Manager is authorized to execute a contract between the CITY OF CRYSTAL LAKE and Manusos General Contracting, Inc. for the Police Department Women's Locker Room Expansion and Evidence Storage Relocation in the bid amount of $267,331.00; and

BE IT FURTHER RESOLVED that the City Manager is authorized to execute change orders for up to 10% of the contract amount and to approve warranted completion date change orders relating to the contract.

DATED this 19th day of August, 2025.

CITY OF CRYSTAL LAKE, an
Illinois municipal corporation,

By:_____
Haig Haleblian, MAYOR

SEAL

ATTEST

_____
CITY CLERK

PASSED: August 19, 2025
APPROVED: August 19, 2025

THE CITY OF CRYSTAL LAKE

CONTRACT FOR THE CONSTRUCTION OF

POLICE DEPARTMENT WOMEN'S LOCKER ROOM EXPANSION

BIDDER'S PROPOSAL

Full Name of Bidder Manusos General Contracting, Inc. ("Bidder")

Principal Office Address 91 Christopher Way Fox Lake, IL 60020

Local Office Address 91 Christopher Way Fox Lake, IL 60020

Contact Person Jamie McKeown Telephone 847-973-0600

Email jamie@manusosinc.com

TO: The City of Crystal Lake ("Owner")
100 W. Woodstock Street
Crystal Lake, Illinois 60045

Attention: ***Michael Wisinski – Public Works Manager***
SEALED BID: PD Women's Locker Room Expansion

Bidder warrants and represents that Bidder has carefully examined the Work Site described below and its environs and has reviewed and understood all documents included, referred to, or mentioned in this bound set of documents, including Addenda Nos. 1, 2, 3, which are securely stapled to the end of this Bidder's Proposal [if none, write "NONE"] ("Bid Package").

Bidder acknowledges and agrees that all terms capitalized in this Bidder's Proposal shall have the meaning given to them in the documents included in the Bid Package.

1. **Work Proposal**

A. Contract and Work. If this Bidder's Proposal is accepted, Bidder proposes, and agrees, that Bidder will contract with Owner, in the form of the Contract included in the Bid Package: (1) to provide, perform and complete at the site or sites described in the Bid Package ("Work Site") and in the manner described and specified in the Bid Package all necessary work, labor, services, transportation, equipment, materials, apparatus, machinery, tools, fuels, gas, electric, water, waste disposal, information, data and other means and items necessary for the **Police Department Women's Locker Room Expansion**; (2) to procure and furnish all permits, licenses and other governmental approvals and authorizations necessary in

Name of Bidder: Manusos General Contracting, Inc. **PROPOSAL**

SCHEDULE OF PRICES

A. LUMP SUM CONTRACT

For providing, performing, and completing all Work, the total Contract Price of: Two Hundred Sixty Seven Thousand Three Hundred Thirty-one Dollars and zero Cents
(in writing) (in writing)

267,331 Dollars and zero Cents
(in figures) (in figures)

B. BASIS FOR DETERMINING PRICES

It is expressly understood and agreed that:

1. The approximate quantities set forth in this Schedule of Prices for each Unit Price Item are Owner's estimate only, that Owner reserves the right to increase or decrease such quantities, and that payment for each Unit Price Item shall be made only on the actual number of acceptable units of such Unit Price Item installed complete in place, measured on the basis defined in the Contract;

2. Owner is not subject to state or local sales, use and excise taxes and no such taxes are included in this Schedule of Prices;

3. All other applicable federal, state, and local taxes of every kind and nature applicable to the Work as well as all taxes, contributions, and premiums for unemployment insurance, old age or retirement benefits, pensions, annuities, or other similar benefits are included in this Schedule of Prices; and

4. All costs, royalties, and fees arising from the use on, or the incorporation into, the Work of patented equipment, materials, supplies, tools, appliances, devices, processes, or inventions are included in this Schedule of Prices.

All claim or right to [dispute or complain of any such estimated quantity, or to assert that there was any misunderstanding in regard to the nature or amount of any Unit Price Item to be provided or performed, or to] claim any additional compensation by reason of the payment of any such tax, contribution, or premium or any such cost, royalty or fee is hereby waived and released.

{00028684 2}

Agenda Item No: 17

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: Bid Award - Sewer Televising and Lining

Staff Recommendation: Motion to award the contract for Sewer Televising and Lining to the lowest responsive and responsible bidder, National Power Rodding Corporation, and to adopt a Resolution authorizing the City Manager to execute a contract with National Power Rodding Corporation in the amount of $297,684.00 with a 10% contingency for unforeseen expenses and to approve warranted completion date extensions.

Staff Contact: Michael Magnuson, P.E., Director of Public Works and Engineering

---

Background:
Sewer lining is an annual program conducted by the Public Works Department. It addresses structural deficiencies such as broken or cracked pipes, as well as infiltration identified by Public Works crews during sewer assessment operations throughout the year. Infiltration is the flow of groundwater into the sanitary sewer system through cracks or other defects caused by age, tree roots, etc. Infiltration can overload the sanitary sewer system, leading to backups and operational issues at the City's wastewater treatment facilities.

The City's sewer condition assessment and maintenance program, conducted by City staff, involves methodically evaluating sewers using an acoustic condition assessment tool, followed by cleaning and periodic televising. Based on these assessments and inspections, City staff annually compiles a list of sewer locations recommended for lining. Lining is significantly less expensive and more efficient than traditional open-cut excavation and pipe replacement methods, and it is typically installed with minimal surface disruption.

Once the sewer lines requiring lining have been identified by staff, the contractor performs additional cleaning and televising, then reviews the results with City staff before installing the new liner.

Staff followed the City's procurement policies and advertised for bids in the newspaper and on QuestCDN, a web-based bid solicitation service that attracts local and national vendors and contractors. On August 5, 2025, the City of Crystal Lake publicly opened and read aloud the bids

received for the lining of sewers at various locations throughout the City. The following is a breakdown of the base bids received:

Bidder	√ National Power Rodding Corporation Chicago, IL	Hoerr Construction Goodfield, IL
Bid Total	$297,684.00	$352,096.00

√ Indicates recommended lowest responsive and responsible bidder

Recommendation

This contract is being presented pursuant to a competitive bidding process. Under such process, the contract is to be awarded to the "lowest responsive and responsible bidder." The lowest responsive and responsible bidder is the contractor: (i) whose bid substantially conforms to the material provisions of the bid specifications, (ii) who demonstrates the financial capacity and ability to undertake and complete the project in question in accordance with bid specifications, and (iii) whose bid price is lowest among the responsive and responsible bidders. Selecting a contractor on bases not set forth in the bid specifications can lead to challenges to the City's award.

The Public Works Department has reviewed bids received for completeness and accuracy in accordance with the invitation to bid document. City staff has worked with National Power Rodding Corporation previously with satisfactory results. Therefore, the Public Works Department recommends that the contract for Sewer Televising and Lining be awarded to the lowest responsive and responsible bidder, National Power Rodding Corporation, in the amount of $297,684.00.

Votes Required to Pass:

Simple majority

RESOLUTION

WHEREAS the CITY OF CRYSTAL LAKE has identified the need for sewer lining to address structural deficiencies and infiltration; and

WHEREAS the CITY received and publicly opened bids for lining of various sewers in the City on August 5, 2025; and

WHEREAS the lowest responsive and responsible bidder is National Power Rodding Corporation;

NOW THEREFORE BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CRYSTAL LAKE that the foregoing recitals are repeated and incorporated as though fully set forth herein; and

BE IT FURTHER RESOLVED the City Manager is authorized to execute a contract between the CITY OF CRYSTAL LAKE and National Power Rodding Corporation for the lining of sewers in various locations in the amount of $297,684.00; and

BE IT FURTHER RESOLVED that the City Manager is authorized to execute change orders for up to 10% of the contract amount and to approve warranted completion date change orders relating to the contract.

DATED this 19th day of August, 2025.

CITY OF CRYSTAL LAKE, an
Illinois municipal corporation,

By:_____
Haig Haleblian, MAYOR

SEAL

ATTEST

_____
CITY CLERK

PASSED: August 19, 2025
APPROVED: August 19, 2025

THE CITY OF CRYSTAL LAKE

55th CONTRACT FOR

SEWER TELEVISING AND LINING

BIDDER'S PROPOSAL

Full Name of Bidder National Power Rodding Corp. ("Bidder")

Principal Office Address 2500 W Arthington St., Chicago, IL 60612

Local Office Address 2500 W Arthington St., Chicago, IL 60612

Contact Person Reid W. Ruprecht Telephone 312-666-7700

Email office@nationalpowerrodding.com

TO: The City of Crystal Lake ("Owner")
100 W. Woodstock Street
Crystal Lake, Illinois 60045

Attention: ***Michael Wisinski – Public Works Manager***
SEALED BID: SEWER TELEVISING AND LINING

Bidder warrants and represents that Bidder has carefully examined the Work Site described below and its environs and has reviewed and understood all documents included, referred to, or mentioned in this bound set of documents, including Addenda Nos. 1, which are securely stapled to the end of this Bidder's Proposal [if none, write "NONE"] ("Bid Package").

Bidder acknowledges and agrees that all terms capitalized in this Bidder's Proposal shall have the meaning given to them in the documents included in the Bid Package.

1. **Work Proposal**

A. Contract and Work. If this Bidder's Proposal is accepted, Bidder proposes, and agrees, that Bidder will contract with Owner, in the form of the Contract included in the Bid Package: (1) to provide, perform and complete at the site or sites described in the Bid Package ("Work Site") and in the manner described and specified in the Bid Package all necessary work, labor, services, transportation, equipment, materials, apparatus, machinery, tools, fuels, gas, electric, water, waste disposal, information, data and other means and items necessary for the Sewer Television and Lining; (2) to procure and furnish all permits, licenses and other governmental approvals and authorizations necessary in connection therewith except

Name of Bidder: National Power Rodding Corp. **PROPOSAL**

SCHEDULE OF PRICES

A. UNIT PRICE CONTRACT

For providing, performing, and completing all Work, the sum of the products resulting from multiplying the number of acceptable units of Unit Price Items listed below incorporated in the Work by the Unit Price set forth below for such Unit Price Item:

COMPLETE TABLE AS INDICATED

Description of Work	Unit	Price per Unit	Est. Qty.	Extension
Cured-in Place Pipe lining of 8" diameter clay Sanitary Sewer, Including cleaning & Televising and end seals.	ft.	$ 32.00	8,397	$ 268,704.00
Cured-in Place Pipe lining of 12" diameter clay Sanitary Sewer, Including cleaning & Televising and end seals.	ft.	$ 34.00	345	$ 11,730.00
* Grouting & testing of 8" mainline Sanitary sewer joints.	ea.	$ 200.00	20	$ 4,000.00
* Grouting & testing of 12" mainline Sanitary sewer joints.	ea.	$ 300.00	5	$ 1,500.00
* Grouting & testing of lateral connections to 8" mainline sanitary sewer. Lateral grout length of 4' minimum required.	ea.	$ 575.00	10	$ 5,750.00
* Short Liner Point Repair/Seal of Abandoned Service Line for 8" Main	ea.	$ 2,500.00	1	$ 2,500.00
* Short Liner Point Repair/Seal of Abandoned Service Line for 12" Main	ea.	$ 3,500.00	1	$ 3,500.00

* THIS WORK WILL BE AS NEEDED. NO LOCATIONS ARE CURRENTLY IDENTIFIED FOR THIS WORK.

TOTAL CONTRACT PRICE:

Two Hundred Ninety Seven Thousand Six Hundred Eighty Four (in writing) Dollars and Zero (in writing) Cents

297,684 (in figures) Dollars and 00 (in figures) Cents

Agenda Item No: 18

City Council
Agenda Supplement

Meeting Date: August 19, 2025

Item: Capital Improvement Plan Presentation – Discussion Only

Staff Contact: Jodie Hartman, Director of Finance

Background:

Members of the Staff will provide an update on current and upcoming projects included in the draft Capital Improvement Plan (CIP).

The City has historically produced a five-year CIP. Due to the high financial impact and long-term nature of capital projects, the City is now implementing a twenty-year CIP. The focus for funding will remain on the upcoming five-year budgetary cycle. The fifteen out-years will be used for planning purposes and ensuring funding is set aside for critical projects on the horizon. Pending any changes from City Council and/or Staff, the formal CIP will be released along with the budget later this fall.