Champaign County Department of

PLANNING & ZONING

Brookens Administrative Center 1776 E. Washington Street Urbana, Illinois 61802

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### CASES 126-S-23 and 127-S-23

PRELIMINARY MEMORANDUM JANUARY 17, 2024

**Petitioner:** FFP IL Community Solar, LLC, a subsidiary of Forefront Power LLC; via agent Christian Schlesinger, and participating landowner Kathryn Bonacci

### Request: Case 126-S-23

Authorize a Community PV Solar Farm with a total nameplate capacity of 4.5 megawatts (MW), including access roads and wiring, in the AG-2 Agriculture Zoning District, and including the following waivers of standard conditions:

Part A: A waiver for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality per Section 6.1.5 B.(2)a.(a).

Part B: A waiver for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet, per Section 6.1.5 D.(3)a.

Part C: A waiver for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.

Other waivers may be necessary.

### Case 127-S-23

Authorize a second Community PV Solar Farm with a total nameplate capacity of 2.5 megawatts (MW), including access roads and wiring, in the AG-2 Agriculture Zoning District, and including the following waivers of standard conditions:

Part A: A waiver for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality per Section 6.1.5 B.(2)a.(a).

Part B: A waiver for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.

Other waivers may be necessary.

Location: Three tracts of land totaling 55.81 acres located in the Northeast Quarter of Section 27, Township 19 North, Range 9 East of the Third Principal Meridian in Urbana Township, and commonly known as farmland owned by Kathryn Bonacci in the southwest corner of the intersection of Windsor Road and IL 130 (High Cross Rd), Urbana.

**Site Area**: site 1: 29.54 acres, site 2: 15.96 acres = 45.5 acres of a 55.81-acre tract

#### Time Schedule for Development: As soon as possible

Prepared by: Susan Burgstrom, Senior Planner John Hall, Zoning Administrator

#### BACKGROUND

The petitioners would like to construct one 4.5-megawatt and one 2.5-megawatt Community PV Solar Farm on a 55.81-acre tract on the southeast limit of the City of Urbana. Case 126-S-23 is for Bonacci Solar site 1, which is the larger proposed solar farm to the east, and Case 127-S-23 is for Bonacci Solar site 2, which is the smaller solar farm to the west. The petitioners request waivers from standard conditions for the Special Use Permits. A PV Solar Farm requires approval by the County Board after recommendations are made by the ZBA and Environment and Land Use Committee.

#### EXTRATERRITORIAL JURISDICTION

The subject property is adjacent to the City of Urbana, a municipality with zoning. Municipalities with zoning are notified of Special Use Permit cases, but do not have protest rights in these cases. The City of Urbana Comprehensive Plan Future Land Use Map calls for residential development in this area. In an email received January 9, 2024, Kevin Garcia with the City stated that they have no issue with plans to develop these sites as solar farms.

The subject property is located within Urbana Township, which does not have a Planning Commission. Townships with Planning Commissions are notified of Special Use Permit cases, but do not have protest rights in these cases.

#### **EXISTING LAND USE AND ZONING**

Direction	Land Use	Zoning
Onsite	Agriculture	AG-2 Agriculture
North	Electrical substation, vacant land	City of Urbana zoning
West	Agriculture Donato solar array/data center	AG-2 Agriculture
East	Agriculture	AG-2 Agriculture
South	Agriculture	AG-2 Agriculture

#### Table 1. Land Use and Zoning Summary

#### **COMPLIANCE WITH PUBLIC ACT 102-1123**

Illinois Public Act 102-1123 effective January 27, 2023 states that counties can adopt standards for commercial solar energy facilities, but the standards cannot be more restrictive than specified in the Public Act.

There are several instances where the Champaign County Zoning Ordinance requirements differ from Public Act 102-1123. The table below details any issues with compliance with both the Zoning Ordinance and Public Act 102-1123.

Pivot Energy Development LLC JANUARY 17, 2024

Zoning Ordinance	Public Act 102-1123	Compliance notes
6.1.5 D.(1) states the setback from solar farm fencing to street centerline must be a minimum of 40 feet from a MINOR STREET and a minimum of 55 feet from a COLLECTOR STREET and a minimum of 60 feet from a MAJOR STREET.	Requires a distance of 50 feet from the PV SOLAR FARM fence to the nearest edge of a public road RIGHT- OF-WAY.	The proposed distance complies with the Zoning Ordinance. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
6.1.5 D.(3)a. states that for any adjacent LOT that is 10 acres or less in area and bordered on no more than 2 sides by the PV SOLAR FARM, separation shall be no less than 240 feet from the property line.	Public Act 102-1123 requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property.	Proposed solar farm complies with Zoning Ordinance and PA 102-1123.
6.1.5 D.(3)b. states that for any adjacent LOT that is more than 10 acres in area (not including the STREET RIGHT OF WAY), the separation shall be no less than 255 feet from any existing DWELLING or existing PRINCIPAL BUILDING and otherwise the perimeter fencing shall be a minimum of 10 feet from a SIDE or REAR LOT LINE.	Public Act 102-1123 requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property.	The proposed distance complies with the Zoning Ordinance. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
6.1.5 D.(6) states that electrical inverters shall be located as far as possible from property lines and adjacent DWELLINGS consistent with good engineering practice. Inverter locations that are less than 275 feet from the perimeter fence shall require specific approval and may require special sound deadening construction and noise analysis.	Public Act 102-1123 does not include a separation distance between inverters and the PV SOLAR FARM fence.	Proposed solar farm complies with Zoning Ordinance and PA 102-1123.
6.1.5 D.(6) states that separation distances for any PV SOLAR FARM with solar equipment exceeding 8 feet in height, with the exception of transmission lines which may be taller, shall be determined by the BOARD on a case-by-case basis.	Public Act 102-1123 states that solar equipment can extend up to 20 feet above ground.	Proposed solar farm equipment height could reach 12 feet tall. No waiver from Zoning Ordinance is needed. <u>Should the</u> <u>ZBA decide that additional separations</u> <u>are needed due to height, it could create</u> <u>compliance issue with Public Act 102- 1123.</u>
6.1.5 I.(1) states noise levels from any PV SOLAR FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations.	Public Act 102-1123 states that a county may not set a sound limitation more restrictive than IPCB regulations.	No noise study has been done, although the petitioner says the noise from the solar farm will comply with IPCB standards. <u>A noise agreement with a</u> <u>lower noise level than allowed under</u> <u>IPCB rules would violate Public Act</u> <u>102-1123, but the Board can still request</u> <u>a noise study</u> .
6.1.5 M.(1)a. states PV SOLAR FARM equipment and structures shall be fully enclosed and secured by a fence with a minimum height of 7 feet.	Public Act 102-1123 states that fencing must be at least 6 feet in height.	Proposed solar farm includes a 7-foot tall fence. Proposed height complies with Zoning Ordinance and Public Act 102- 1123.

#### NOISE

The Zoning Ordinance leaves it up to the ZBA to decide if they want a noise study for community scale solar projects. No noise study was submitted for the proposed projects. Attachment C page 3 includes information on comparative noise levels from the developer. The section refers to SG125HV inverters by mistake; the developer verified that the inverter model is the Solectria XGI 1500-250. The inverter specification sheet in Attachment G for the Solectria model states its acoustic noise rating is 73 dBA at one meter and 67 dBA at three meters.

The distance between the inverters and the nearest residence, which is east of A&E Animal Hospital, is 825 feet. Note that the adjacent Donato – Windsor Road solar array under construction just north of site 2 and southwest of A&E Animal Hospital established an agreement regarding noise levels between Mr. Donato and A&E Animal Hospital. It is possible that A&E will have similar concerns about the proposed solar farms. Notice was sent to adjacent owners on January 10, and no comments have been received as of January 17.

Regarding compliance with Public Act 102-1123, a noise agreement such as the one with A&E with a lower noise level than allowed under IPCB rules would violate Public Act 102-1123, but the Board can still request a noise study. The Donato solar arrays are not subject to Public Act 102-1123, but the proposed Bonacci solar farm is.

### **PROPOSED SPECIAL CONDITIONS – SAME FOR BOTH CASES**

- A. The approved site plan consists of the following documents:
  - Site Plan received January 10, 2024.

The special condition stated above is required to ensure the following: The constructed PV SOLAR FARM is consistent with the special use permit approval.

B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.

The special condition stated above is required to ensure the following: That exterior lighting for the proposed Special Use meets the requirements established for Special Uses in the Zoning Ordinance.

C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.

The special condition stated above is required to ensure the following: That the proposed Special Use meets applicable state requirements for accessibility. D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.

The special condition stated above is required to ensure the following:

That the land affected by PV SOLAR FARM is restored to its pre-construction capabilities.

E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

The special condition stated above is required to ensure the following:

The Special Use Permit complies with Ordinance requirements and as authorized by waiver.

F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.

The special condition stated above is required to ensure the following: To ensure full compliance with the intent of the Zoning Ordinance in a timely manner that meets the needs of the applicant.

- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25-year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).

- 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
- 7. The telephone number for the complaint hotline required by 6.1.5 S.
- 8. Any updates to the approved Site Plan from Case 126-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.
- 9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed consistent with the Special Use Permit approval and in compliance with the Ordinance requirements.

- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:
  - 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
  - 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
  - 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.

The special condition stated above is required to ensure the following:

The PV SOLAR FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).
  - 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).

- 4. Maintain a current general liability policy as required by 6.1.5 O.
- 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
- 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.
- 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.

The special condition stated above is required to ensure the following: **Future requirements are clearly identified for all successors of title, lessees, any operator and/or owner of the PV SOLAR FARM.** 

J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed in compliance with the Ordinance requirements.

K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

The special condition stated above is required to ensure the following: Conformance with Policy 4.2.3 of the Land Resource Management Plan.

L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

The special condition stated above is required to ensure the following: That drainage district tiles are protected.

# M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The special condition stated above is required to ensure the following: That the current version of the Zoning Ordinance has been referenced.

#### ATTACHMENTS

- A Case Maps (Location Map, Land Use, and Zoning)
- B1 Revised Site Plan Site 1 received January 10, 2024
- B2 Revised Site Plan Site 2 received January 10, 2024
- C Project Description received December 15, 2023
- D Exhibits from Special Use Permit application received December 15, 2023
- E Agricultural Impact Mitigation Agreement received December 15, 2023
- F Interconnection application received December 15, 2023
- G Inverter spec sheet downloaded December 20, 2023
- H Solar Module spec sheet downloaded December 20, 2023
- I1 Decommissioning and Site Reclamation Plan for Site 1 received January 5, 2024
- I2 Decommissioning and Site Reclamation Plan for Site 2 received January 5, 2024
- J Vegetation Establishment and Management Plan received January 10, 2024
- K Email from Matthew Vollbrecht received January 9, 2024, with attachment:
  - Drainage District tile locations provided by Byron Balbach, Attorney for Silver Creek Drainage District and Drainage District #3 of the Town of St. Joseph
- L Email from Kevin Garcia, City of Urbana, received January 9, 2024
- M Natural Resource Report by the Champaign County Soil and Water Conservation District received November 28, 2023
- N Site visit images taken January 3, 2024
- O Case 126-S-23 Summary of Evidence, Summary Finding of Fact and Final Determination dated January 25, 2024
- P Case 127-S-23 Summary of Evidence, Summary Finding of Fact and Final Determination dated January 25, 2024

## **Location Map**

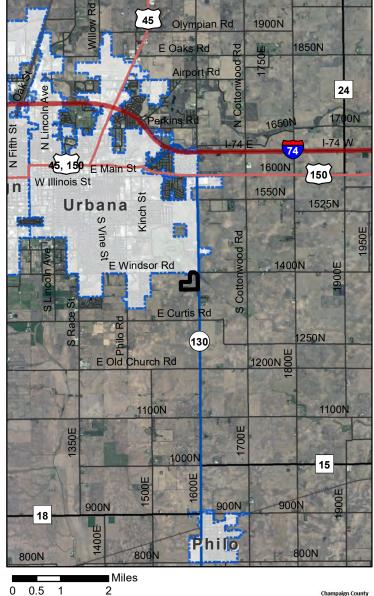
Cases 126-V-23 & 127-S-23 January 25, 2024

**Subject Property** S Briarc Kinch E Florida Ave Blvd Shigh Cross Rd Colorado Ave Creek . Urbana River Bir¢h Ln Stone ( Δ S Amber Ln Pond St Rocky Ln teld F Rd 1400N E Windsor Rd TE -Cottonwood 1 Ridge Dr Wyra S Vernon D Hillshire Dr ť (130) E Curtis Rd 100 100 1250N Miles Subject Property

0 0.1250.25

0.5

# Property location in Champaign County



Solar Farm Fenced Areas

Municipal Boundary

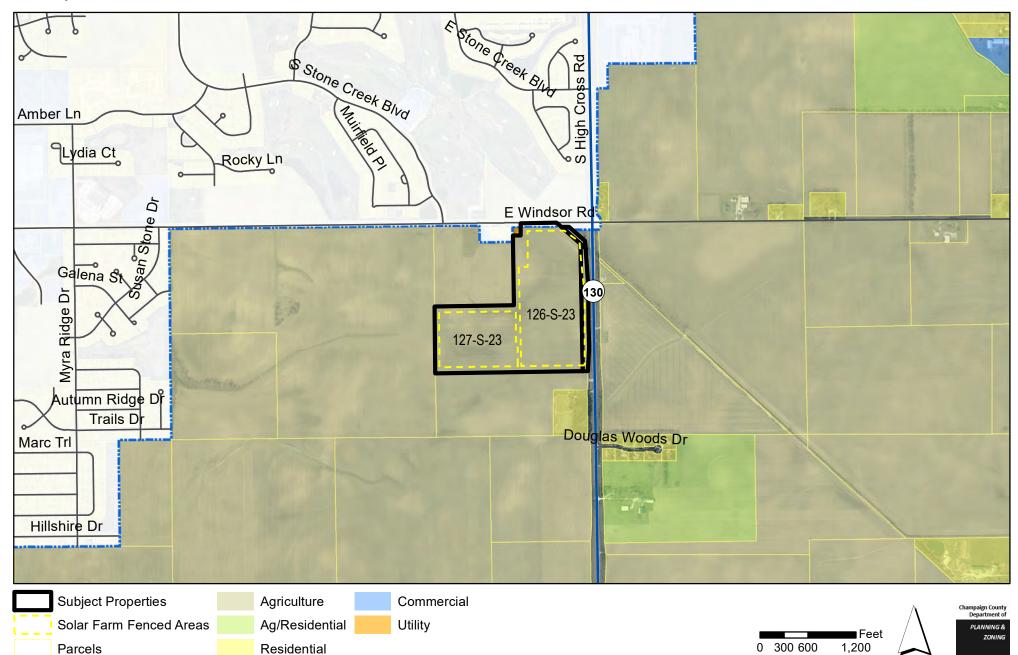
Champaign County Department of PLANNING & ZONING



### Land Use Map

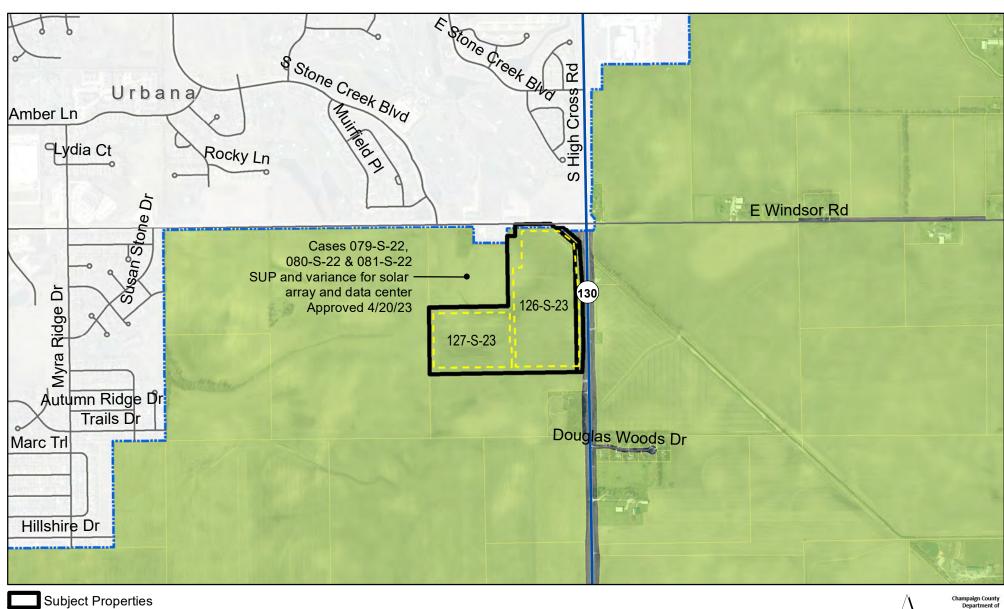
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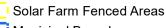
Cases 126-V-23 & 127-S-23 January 25, 2024



## **Zoning Map**

Cases 126-V-23 & 127-S-23 January 25, 2024

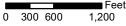




Municipal Boundary

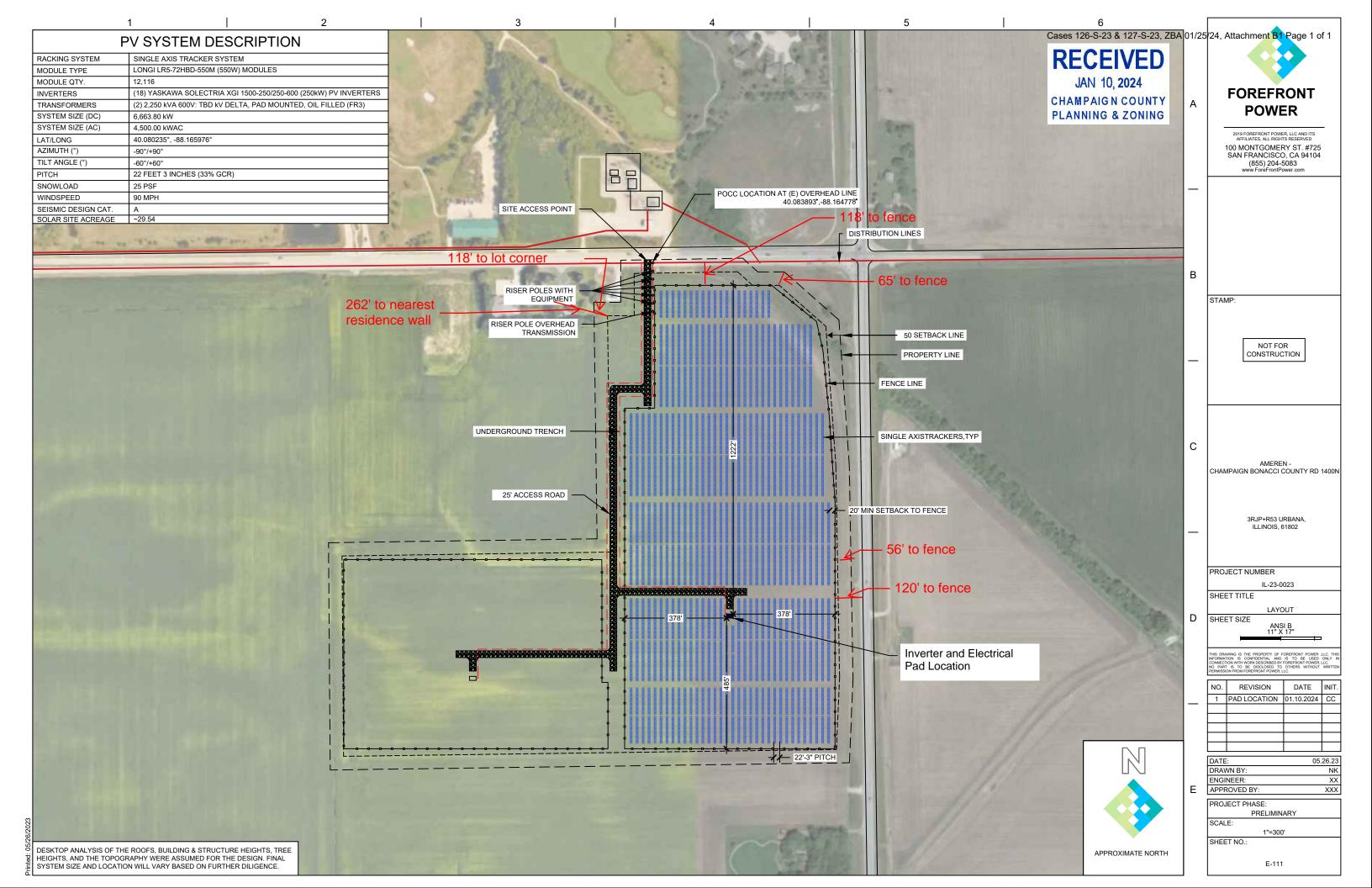
AG-2 Agriculture

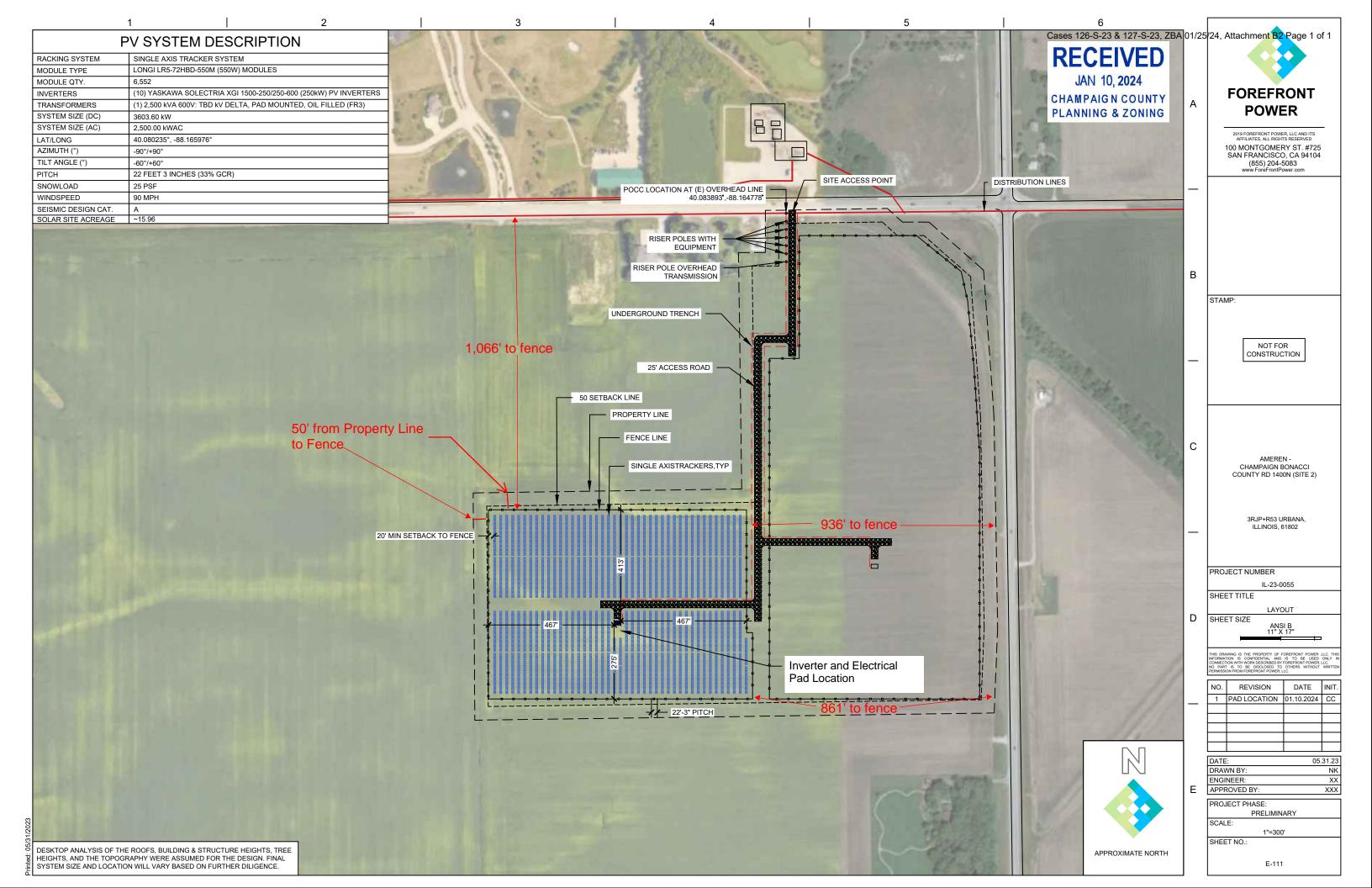
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## 1.0 Champaign County Special Use Application

The Bonacci Site 1 Solar Project (Project) is located in Champaign County, Illinois (Exhibit 1) outside of any defined municipal extraterritorial jurisdictions or zoning districts. The proposed Project is located on a parcel of land that is currently used for cropland cultivation (Exhibit 2).

This SUP application contains the following requisite information per the Champaign County Zoning Ordinance dated February 23, 2023, Section 6.1 Governing Commercial Solar Energy Facility Siting, this information is contained in the following narrative, Exhibits 1-6 and Appendices A-F:

- Completed and Signed Champaign County Zoning Application Packet and Site Plan Review Request (Included in Appendix A)
- Plat of Survey (Included in Appendix B)
- Site Plan (Included in Appendix B)
- NRI Report (Included in Appendix C)
- Decommissioning Plan (Included in Appendix D)
- Threatened and Endangered Species Consultation (Included in Appendix E)
- Agricultural Impact Mitigation Agreement (Included in Appendix F)
- Site Legal Description (Included in Appendix G)
- Interconnection Information (Included in Appendix H)

### 2.0 Supplemental Application Information

FFP IL Community Solar, LLC (Applicant) is proposing the Bonacci Site 1 Solar Project, located on 29.84 acres of a 53.10 acre parcel in Champaign County, Illinois and is located within an unincorporated part of Champaign County. The Project is proposed to have a capacity of 4.5 MWAC (6.7 MW DC). The Project Area is in Section 27, Township 19N, Range 9E, Champaign County, Illinois (Exhibit 1). East Windsor Road is located just north of the Project Area and South High Cross Road to the east. The municipal boundaries of the City of Urbana are located just north of the Project Area. Elevations range from 690 to 698 feet (Exhibit 2). The Project Area consists almost entirely of cultivated cropland. Surrounding land uses consist of residential and commercial development associated with Urbana, forest lands, and agricultural land.

As shown in Appendix B, the Project will be comprised of rows of PV cell panels mounted on posts set into the ground (i.e., solar arrays). FFP IL Community Solar, LLC, LLC will mount the solar arrays on single-axis trackers with each solar array tilting between 60/-60 degree angles. The height of the solar array will not exceed 12 feet above ground surface, and FFP IL Community Solar, LLC intends to utilize 12,116 LONGi Solar LR5–72HBD-550M modules, as well as 18 Yaskawa Solectria XGI 1500-250/250-600 PV inverters; however, the specific solar array configuration for this Project will be decided once additional site-specific information and design components are determined. The LONGi Solar LR5–72HBD-550M modules are UL and CSI (California Solar Initiative) listed. According to the Solar Energy Industries Association, the proposed 3.25-MW Project is capable of powering approximately 400 homes in Illinois with clean, renewable energy.

### Traffic Impacts

Due to the rural location and size of the Project (i.e., 4.5 MW), traffic impacts are expected to be minimal. Project development may be divided into the four phases: site preparation, material and equipment delivery, solar garden construction, and solar garden maintenance.

The following table illustrates a typical, estimated average daily trip generation by vehicle for each Project phase for an approximate 4.5 MW solar project.

Project Phase (Time Period)	Vehicle Type	Estimated Gross Vehicle Weight	Number of Vehicles Per Day	Maximum and Average Vehicle Trips Per Day
Site Preparation (approx. 4-6 weeks)	Equipment Hauling Trucks	30,000-65,000 lbs	0-2	0-4
	Passenger Vehicles	2,000-10,000 lbs	2-5	4-10
	Fuel Delivery	20,000-30,000 lbs	1	2
				Max – 16/Ave - 6
Material and Equipment Delivery (approx. 4 weeks)	Conex Container and Delivery Trucks	30,000-50,000 lbs	5-15	10-30
	Equipment Hauling Trucks	20,000-40,000 lbs	0-4	0-8
				Max – 38/Ave - 10
Solar Garden Installation (4-5 months)	Passenger Vehicles	2,000 to 10,000 lbs	10-15	20-30
	Fuel Truck	20,000 to 30,000 lbs	1	2
	Material Delivery Truck	20,000 to 30,000 lbs	1	2
				Max – 34/Ave - 24
Operations (ongoing once operational)	Utility Vehicle	2,000 to 10,000 lbs	1 per month or less	
				Max - 2/Ave - 0

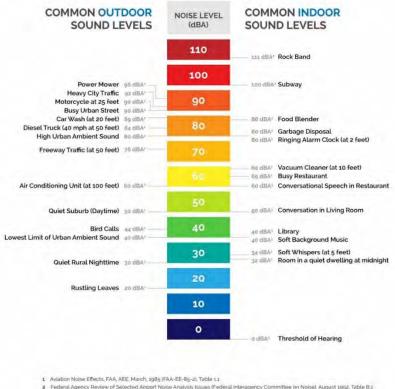
Project-related traffic during all phases will not be significant during AM and PM peak periods (7:00 - 9:00 AM and 4:00 - 6:00 PM, respectively).

### 3.0 General Construction and Development Criteria

The Project's final layout will optimize electrical generation and efficiency of the proposed solar Project while avoiding and minimizing human settlement, environmental, cultural resources, and infrastructure impacts. The Project's facilities will be sited to comply with Champaign County setback requirements, where feasible, and will also comply with other local, state, and federal regulatory standards. The preliminary Project layout is attached.

• Glare – The project will utilize LONGi Solar LR5–72HBD-550M photovoltaic modules, which are constructed of anti-reflective coated tempered glass. In addition, the facility will be sited strategically to avoid glint and glare reflection towards adjacent roadways and surrounding areas.

- Lighting One motion-sensing security light will be installed at the entrance gate of the Project Premises. The security light will be shielded and downcast to minimize disturbance to the adjacent properties. The lighting will be designed and sited to avoid any light from spilling onto any adjacent property.
- Noise Noise levels from the CSES will be in compliance with the Illinois Pollution Control Board regulations. The SG125HV invertors proposed to be used in the project emitted a maximum of 61.6 dB at 1 meter away from the invertor. This noise level is comparable to an air conditioning unit running 100 feet away or conversational speech in a restaurant. The chart below created by the FAA illustrates the noise levels of many common sound levels.



### Comparative Noise Levels (dBA)

Federal Agency Review of Selected Airport Noise Analysis Issues (Federal Interagency Committee on Noise). August 1992. Table B.1
 Children's health and the environment. A Global Perspective, World Health Organization, 2005; Table 3,5
 OSH Technical Manual, TECP 0-0-03,5 Section III Health Hazardol, Chapter 5 Miose, Vpdded B/15/2013
 OSH Technical Manual, TECP 0-0-03,5 Section III Health Hazardol, Chapter 5 Miose, Vpdded B/15/2013

As the Noise Study indicates, the noise level from the project at 1 meter from the invertor will be comparatively quiet and this sound level will be even lower by the edge of the project area, likely well below the ambient noise level.

Security Fencing - The entire Project Premises will be surrounded by a seven-foot-tall standard chain-link fence. The Project will be designed to meet or exceed applicable local and national safety standards, specifically including: the currently enforced edition of the

National Electric Code (NEC), and such regulations provided by the interconnecting utility. The Project will include a visible and lockable manual safety switch, which will be made accessible to first responders, the utility, and maintenance personnel via gate lockbox, code, or other method to be defined prior to construction. Additionally, the solar inverters (which convert electricity from the solar modules from DC to AC) are listed to the UL-1741 standard, which provides for immediate shutdown upon loss of an electrical signal from the utility.

- Setbacks and Landscape buffering The project has been designed to meet the zoning required setbacks of:
  - 1. Fencing will be set back a minimum of 40 feet from a Minor Street, 55 feet from a Collector Street and 60 feet from a Major Street
  - 2. 255-feet from the nearest point on the outside wall of any Non-Participating Residences
  - 3. 10-feet from any side or rear lot line
- Drain tile-A preliminary Drain Tile report has been completed for the project and drain tile locations are shown in Exhibit 4.
- Screening Any part of the facility within 1,000 feet of any Non-Participating residence or Road right-of-way not screened by existing vegetation will be screened by a native scrub screening as shown in Exhibit 5.
- Warning Signage Visible warning signs shall be posted at each ingress/egress point associated with the Project. The Project emergency contact information and 911 address will be clearly posted on all warning signage.
- Utility Connection The Applicant is currently in the process of obtaining an Interconnection Agreement with the local electric company.
- Endangered Species Please see Appendix E
- Compliance with Additional Regulations The applicant fully intends to comply with all federal, state, and local laws and regulations. Other than submittal to IDNR regarding EcoCAT, there have been no other consultation with agencies to date.

## 4.0 Project Parcel Legal Description

The Legal Description for the site is included in Appendix G.

## 5.0 Project Contact Information

The Applicant for the SUP will be:

FFP IL Community Solar, LLC Christian Schlesinger, Senior Project Manager 100 Montgomery Street, Suite 725 San Francisco, CA 94104 631-495-4950

The Project Premises will be leased from the following property owners:

Kathryn Bonacci 3815 Countryside Lane Sarasota, FL 34233

Documentation demonstrating land ownership or legal control of the property is included in the signed zoning application in Appendix A.

## 6.0 Potential Construction Timeline

Project staff members are actively working with the County and will seek a SUP for the Project. Interconnection structures will be included and described in the Application for the SUP. The applicant plans to submit the SUP Application to the County in Q4 2023. Construction of the Project is anticipated to begin after issuance of the SUP, which would likely be during Spring-Summer 2024. Toro Construction CS Partnership, LLC plans to construct the Project on a schedule that facilitates an in-service date in mid/late 2024.

• Equipment Purchase: The Applicant anticipates procuring Project equipment between the fourth quarter 2023 and second quarter 2024. Final contractor selections will be made contingent on the SUP being approved and issued by the County.

• Construction: The Applicant will oversee the primary contractors performing construction of the Project. These construction activities will include site preparation, grading, access road building, solar array assembly, electrical, transmission, and communications installation work. Construction start would occur around spring of 2024. The Applicant anticipates beginning construction of the Project soon after being granted SUP approval, fulfilling necessary pre-construction compliance requirements, and securing other required approvals.

• Testing and Commissioning: Testing and commissioning will occur at the end of construction and prior to the Commercial Operation Date (COD). This will be late 2024.

• Operation: As indicated above, the COD of the Project will occur late 2024 after construction and testing/commissioning activities are completed.

### 7.0 Decommissioning Plan

Decommissioning of the Project at the end of its useful life (approximately 30 years) would include removing the solar arrays (modules, racking and steel foundation posts), inverters, fencing, access roads, above-ground portions of the electrical collection system, lighting, substation, and transmission. Standard decommissioning practices will be used, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements, and restoration. A Decommissioning Plan is included in Appendix D.

# 8.0 Erosion Control Plan

During construction, one of the primary means to protect and preserve the topsoil at the Project site will be to separate the topsoil from the other subgrade/subsoil materials when earthmoving activities, excavation, or trenching are taking place during grading, road construction, cable installation, foundation installation, etc. There may be limited situations where excavated subsoil will be stored on adjacent undisturbed topsoil as most subsoil will be untouched. In these situations, subsoil will be returned to the excavation with as little disturbance of the underlying topsoil as practicable. Laying down a thin straw mulch layer as a buffer between the subsoil and topsoil will be used as practicable to facilitate more effective separation of the subsoil and underlying topsoil during the excavation backfill process.

Following earthwork activities that require segregation of topsoil/subsoil, topsoil materials will be re-spread on top of the backfilled and disturbed areas to maintain the overall integrity and character of the pre-construction farmland. Any excess topsoil material would be re-spread on the Project Premises site at pre-established locations. The location and amount of topsoil will be documented to facilitate re-spreading of topsoil as a part of Project decommissioning. A detailed Erosion Control Plan will be completed and submitted as a portion of the Building Permit for the site.

### 9.0 Vegetation Maintenance Plan

Following construction of the solar facility, disturbed grounds will be re-established with lowgrowth/low-maintenance ground cover. The vegetative maintenance contractor will be responsible for inspecting and maintaining the vegetative integrity of the solar facility. The contractor will conduct on-site activities during growing months at a frequency of approximately 2-3 times per year. The contractor is expected to adjust site maintenance frequency based on time of year and weather conditions. To avoid rutting, erosion, and soil compaction, weather forecasts will be consulted, and on-site field inspections will be conducted prior to mowing or cutting to ensure that these practices occur when the site is able to withstand this type of activity.

The proposed Project may follow practices that: (1) provide native perennial vegetation and foraging habitat, which is beneficial to game birds, songbirds, and pollinators; and (2) reduce stormwater runoff and erosion at the solar site. To the extent practical, if establishing perennial vegetation and beneficial foraging habitat, the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds.

A detailed Vegetation Maintenance Plan will be completed and submitted as a portion of the Building Permit for the site.

### 10.0 EcoCAT and IPaC Results

Westwood conducted an IPaC coordination with the U.S. Fish and Wildlife Service (USFWS) (2023) (Appendix E). The results of the effort identified six federally endangered, threatened, proposed, candidate, or Non-essential Experimental Population (NEP) species as potentially occurring within the Project Area or surrounding region. These species and their listing status are named in Table 10.1. Although not identified by the IPaC, the Bald Eagle (*Haliaeetus* 

*leucocephalus*) is included for review due to being protected under the Bald and Golden Eagle Protection Act (BGEPA) (USFWS n.d.a).

Common Name (Scientific Name)	Status <sup>1</sup> (Federal/State)	Probability of Occurrence
Mammals		
Indiana Bat ( <i>Myotis sodalist</i> )	FE/SE	Low
Tricolored Bat (Perimyotis subflavus)	PE/	Review if uplisted
Birds		
Whooping Crane (Grus americana)	NEP/	N/A
Bald Eagle (Haliaeetus leucocephalus)	BGEPA/	Low
Insects		
Monarch Butterfly (Danaus plexippus)	C/	Review if uplisted
Mussels		
Salamander Mussel (Simpsonaias ambigua)	PE/SE	Zero
Plants		
Eastern Prairie Fringed Orchid (Platanthera leucophaea)	FT/SE	Low

Table 10.1 – Federally-Protected Species with the Potential to Occur in the Project Area

<sup>1</sup>FE = Federally endangered; FT = Federally threatened; C = Federal candidate for listing; BGEPA = Bald and Golden Eagle Protection Act; SE = State endangered; NEP = non-essential experimental population

These species and their probability of occurrences are described in more detail below.

#### Mammals

#### Indiana Bat

The Indiana bat is federally and state endangered (USFWS n.d.b, IDNR 2023a) due to population level declines primarily caused by the fungal infection that manifests as white-nose syndrome (WNS), habitat loss, habitat degradation and fragmentation, winter disturbance, climate change, and environmental contaminants (IDNR 2017).

Indiana bats typically occur in the southern and western portions of Illinois (IDNR 2017). Indiana bats roost under bark and in cavities or crevices of live or dead trees in forested areas with open water, especially floodplain forests, and forage in semi-open forests, riparian corridors, and forested edges (IDNR 2017, IDNR 2023a, USFWS n.d.b). In the winter, Indiana bats hibernate in caves and abandoned mines (USFWS n.d.b)

According to the IDNR (2023b), Indiana bats are known to occur in Champaign County. However, there are no known records of Indiana bat maternity roosts or hibernacula mapped within the County (Loeb and Winters 2013). Please note lack of presence of species or habitat records should not be interpreted to mean lack of occurrence; instead, it may imply the area has not been surveyed. Potentially suitable roosting habitat appears absent within both Project Areas, suggesting a low probability of occurrence. If tree clearing is not expected to occur, limited to no impacts to the Indiana bat are anticipated and no further actions are recommended at this time.

Tricolored Bat

The tricolored bat is federally proposed endangered due to population-level declines primarily caused by the fungal infection that manifests as WNS, habitat degradation and fragmentation, winter disturbance, climate change, and environmental contaminants (USFWS n.d.c).

There are currently no state or federal protections for this species; however, this species is currently under review for listing as endangered under the ESA (USFWS 2022). No further actions are recommended at this point. If the species is reclassified to endangered or threatened prior to Project completion, further assessment should be considered.

#### Birds

#### Whooping Crane

The Whooping Crane is designated as a Non-essential Experimental Population (NEP) in Illinois (USFWS n.d.d). NEPs are populations that have been established within a species historic range to aid in recovery; NEP populations do not receive any federal protections under the ESA (USFWS n.d.e). Additionally, Whooping Cranes are not currently protected under the Illinois Endangered Species Protection Act (520 ILCS 10); therefore, no further actions or considerations are recommended at this time.

#### Bald Eagle

Bald Eagles are protected under the BGEPA and occur year-round in Illinois (IDNR 2023c, USFWS n.d.a). Nonbreeding and overwintering Bald Eagles primarily occur in the north and west of Illinois along the Mississippi and Illinois Rivers, whereas permanent residents occur throughout the state (IDNR 2023c).

Bald Eagles typically select nest sites away from developed areas near lakes and rivers in forested areas where tall, large diameter trees are less than one half mile from a water source (Grier and Guinn 2003, Buehler 2022).

Potentially suitable nesting, roosting, and foraging habitat appear absent from both Project Areas and the immediate surrounding region. As such, the probability of occurrence within the Project Areas is considered low. Based on the intentions of the proposed Project, limited to no impacts to Bald Eagles are anticipated, and no further actions are recommended at this time.

#### Insects

#### Monarch Butterfly

The monarch butterfly is a candidate species for listing due to habitat loss and pesticide use (USFWS n.d.f). Currently, this species is not afforded any state or federal protections; therefore, no further actions are recommended at this time. If the species is reclassified to threatened or endangered prior to Project completion, further assessment should be considered.

#### Mussels

#### Salamander Mussel

The salamander mussel is federally proposed threatened and state endangered due to habitat loss and degradation (NatureServe 2023). Although salamander mussels are not currently afforded federal protections under the ESA, they are protected under state regulations.

Salamander mussels inhabit medium to large rivers, creeks, streams, and lakes with swift currents (NatureServe 2023).

According to IDNR (2023b), salamander mussels are known to occur within Champaign County. According to the NHD (USGS 2022) database, no flowlines are present within the Project Areas, and therefore potentially suitable habitat is absent, suggesting a zero probability of occurrence within the Project Areas. Best Management Practices (BMPs) should be implemented to avoid soil erosion and sedimentation to nearby water resources and wetlands.

#### Plants

Eastern Prairie Fringed Orchid

Eastern prairie fringed orchids are federally threatened and state endangered due to habitat loss and degradation, grazing, drought, and encroachment of woody vegetation (USFWS n.d.g).

In Illinois, the eastern prairie fringed orchid is almost exclusively found in remnant wet prairies (Pankau 2019). This species occurs in a variety of habitats from mesic prairies to wetlands in full, direct sunlight with little to no woody encroachment (USFWS n.d.g). Eastern prairie fringed orchids are specialists to particular weather conditions and are sensitive to certain agricultural practices such as haying and grazing (USFWS n.d.g).

According to IDNR (2023b), eastern prairie fringed orchids are not currently known to occur in Champaign County. Additionally, the Project Areas are entirely cultivated cropland, and therefore highly disturbed, suggesting a low probability of occurrence. Based on the intentions of the proposed Project, limited to no impacts to eastern prairie fringed orchids are anticipated, and no further actions are recommended at this time.

#### State Listed Rare, Threatened, and Endangered Species

On September 27, 2023, Westwood submitted an EcoCAT (IDNR 2023d) request to the Illinois Department of Natural Resources (IDNR) for information regarding state-listed threatened or endangered species (Appendix E). The request (IDNR #2405178) identified no records of state-listed threatened or endangered species within the Project Area and surrounding vicinity.

In addition to designating threatened and endangered species of plants and wildlife, IDNR also designates Illinois Natural Area Inventory (INAI) sites for the protection and preservation of natural areas of high quality, habitats of endangered species, and other significant natural features (IDNR 2023e). No INAI sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves were mapped within the Project Area and surrounding vicinity (Appendix E).

This review reflects the information existing in the Database at the time of the inquiry and should not be regarded as a final statement on the site being considered, nor should it substitute for detailed site surveys or field surveys required for environmental assessments. If additional resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

### 11.0 Archaeological, Cultural, and Historical Resources

As a preliminary review of cultural resources in the Project Area, Westwood examined the Illinois Inventory of Archaeological Sites (IIAS) and the Historic and Architectural Resources Geographic Information System (HARGIS) maintained by the Illinois SHPO. An initial inventory of archaeological sites and historic structures was compiled. Previous surveys were also examined for insight into the cultural resource potential of the Project Area. Additionally, the National Register of Historic Places (NRHP) database was reviewed. The Project Area was examined, as well as a ¼-mile buffer.

No previously recorded cultural resources are present in the Project Area or the 1/4-mile buffer based on the review of available data in the IIAS and HARGIS.

No NRHP listed properties or historic districts are present within the Project Area or the 1/4-mile buffer.

No previous cultural resources survey has been conducted within the Project Area.

A review of the Illinois Archaeological Predictive model (IAPM) highlights the Project Area as an area of Medium-High potential for cultural resources. The IIAS also maintains a layer called "Archaeological Resource Potential." The Project Area is not indicated as having high potential for unrecorded archaeological resources according to the layer.

Historic plat maps on the IIAS viewer do not indicate any historic features in the Project Area.

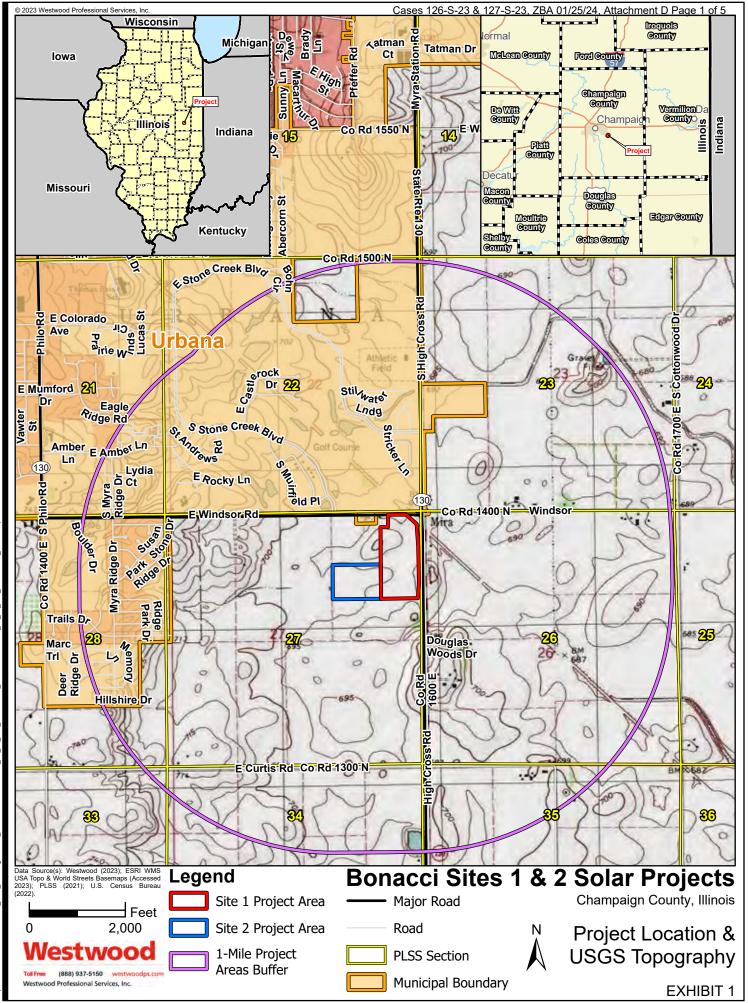
Should the current Project be deemed a federal undertaking (requiring a federal permit, license, or approval; being located on federally owned or managed land; or receiving federal financial assistance), the scope of required cultural resource investigations would be determined by the functioning lead federal agency in cooperation with the SHPO and pertinent Tribal Historic Preservation Offices (THPO) as defined in both Section 101 of the National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act of 1966 (as amended) (NHPA).

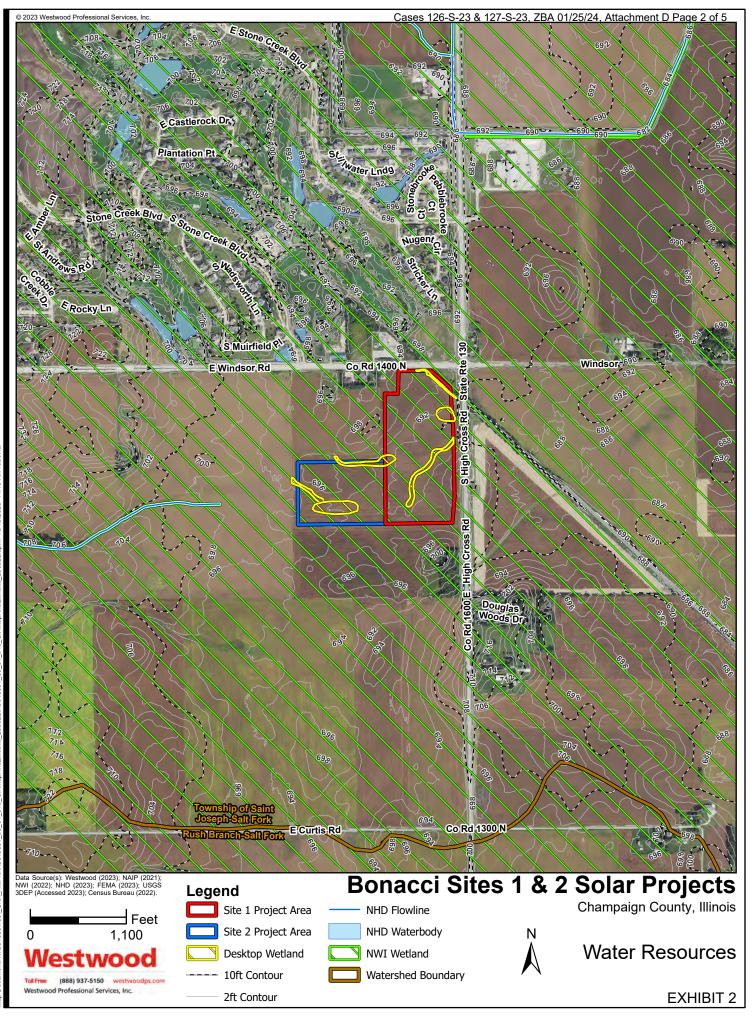
Should the proposed Project be located on land owned or managed by the State of Illinois or a sub-division of the State, the scope of required cultural resource investigations would be determined by the SHPO. It is possible other state or local permits may also require coordination and review by the SHPO. Based on experience with other solar projects in Illinois it is assumed there will be some level of state review.

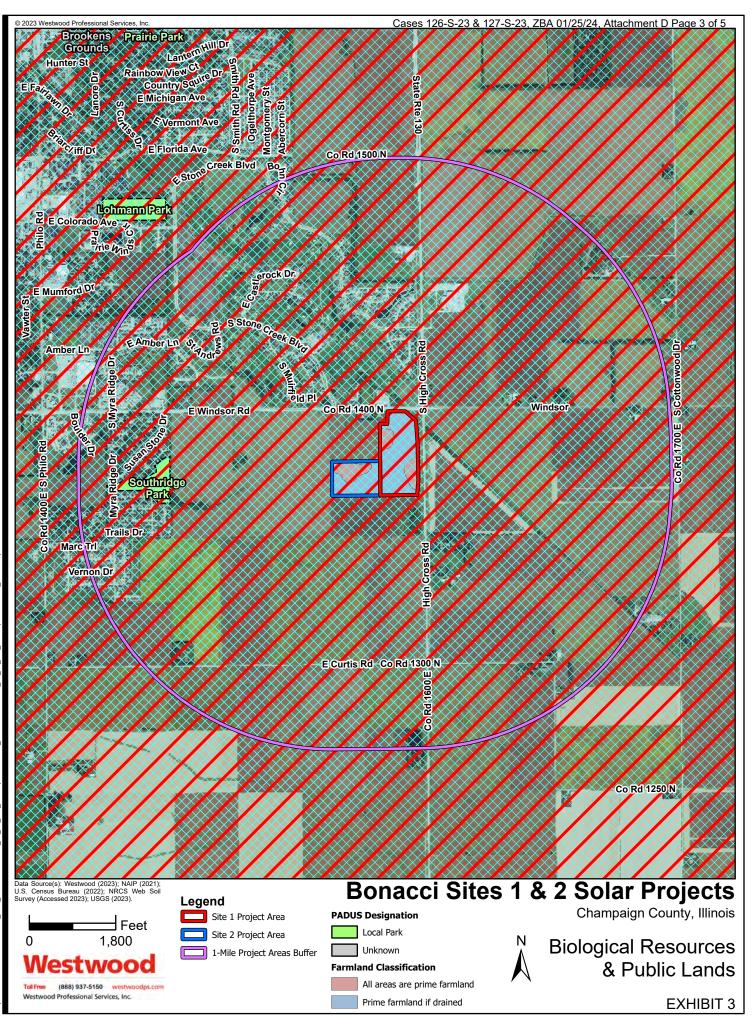
Should federal involvement require environmental review of the Project, the lead federal agency would be responsible for defining the scope of cultural resources investigations within the defined Area of Potential Effect (APE) to assess the potential impact on cultural resources.

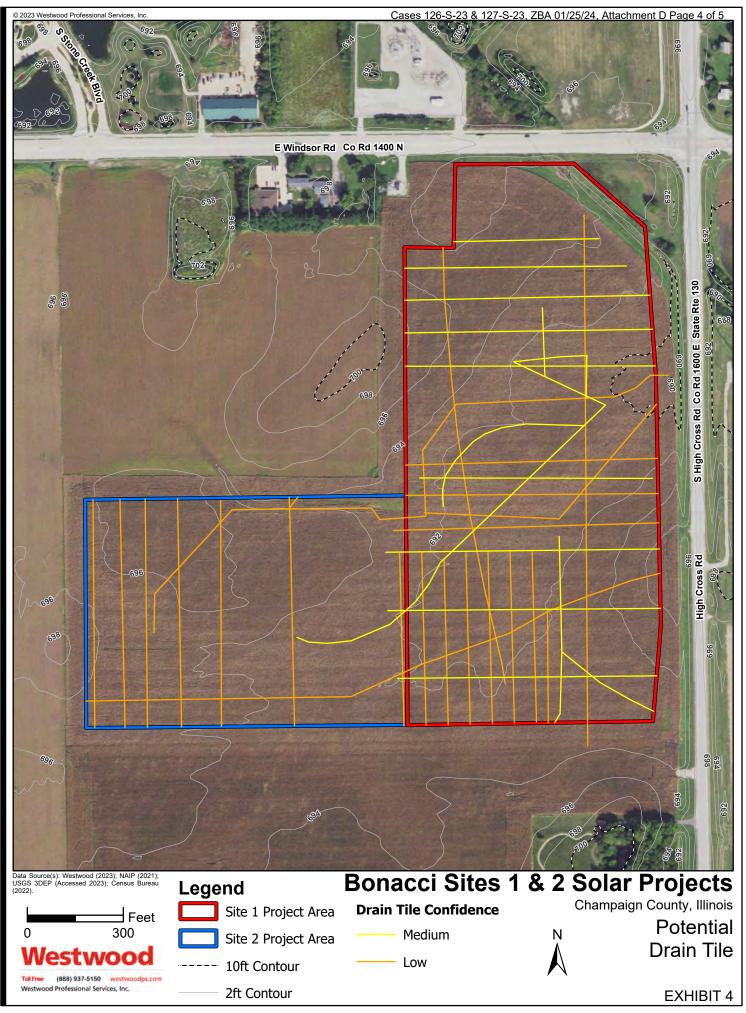
## 12.0 Agricultural Impact Mitigation Agreement

An Agricultural Impact Mitigation Agreement (Appendix F) has been signed by the applicant and has been submitted to the Illinois Department of Agriculture for signatures.

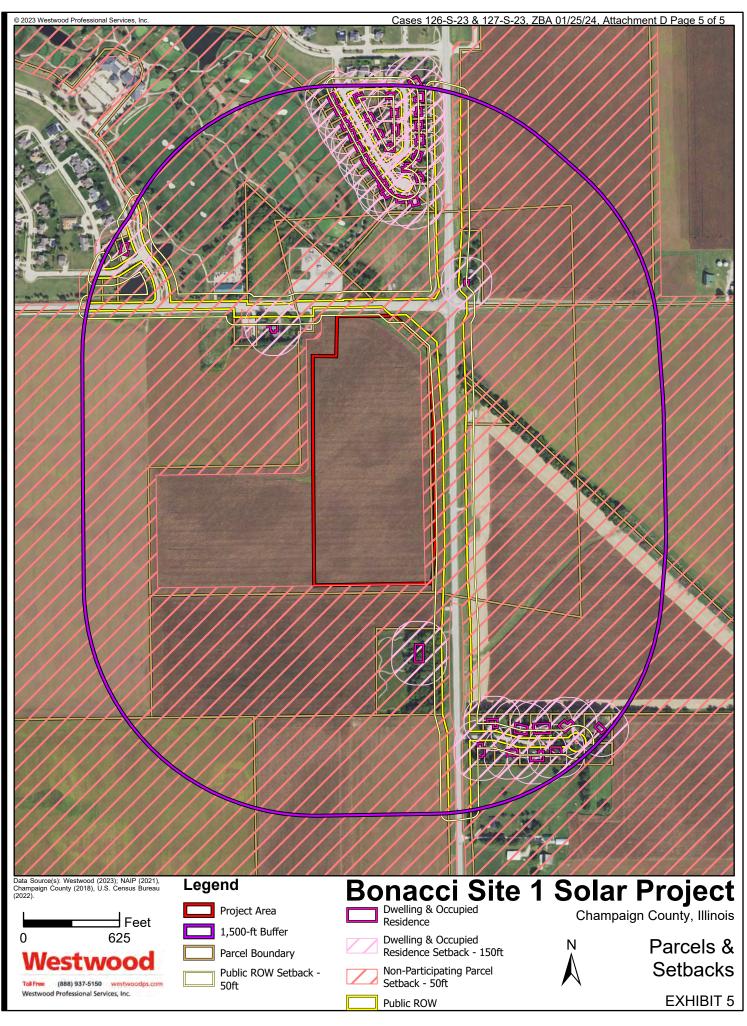








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#### STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT between FFP IL Community Solar, LLC

#### and the ILLINOIS DEPARTMENT OF AGRICULTURE Pertaining to the Construction of a Commercial Solar Energy Facility in <u>Champaign</u> 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).

If Construction does not commence within four years after this AIMA has been fully executed, this AIMA shall be revised, with the Facility Owner's input, to reflect the IDOA's most current Solar Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, shall be filed with the County Board by the Facility Owner prior to the commencement of Construction.

The below prescribed standards and policies are applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

#### Conditions of the AIMA

The mitigative actions specified in this AIMA shall be subject to the following conditions:

- A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities. IDOA may utilize any legal means to enforce this AIMA.
- B. Except for Section 17. B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities.
- C. The Facility Owner may negotiate with Landowners to carry out the actions that Landowners wish to perform themselves. In such instances, the Facility Owner shall offer Landowners the area commercial rate for their machinery and labor costs.

- D. All provisions of this AIMA shall apply to associated future Construction, maintenance. repairs, and Deconstruction of the Facility referenced by this AIMA.
- E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.
- H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.
- Ι. 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.
- If there is a change in ownership of the Facility, the Facility Owner assuming ownership of J. 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.
- Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide L. 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.
- Μ. 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.

FFP IL Community Solar, LLC Cases 126-S-23 & 127-S-23, ZBA 01/25/24, Attachment E Page 3 of 12 Standard Solar Agricultural Impact Mitigation Agreement

- Aboveground CableElectrical power lines installed above ground surface to be utilized<br/>for conveyance of power from the solar panels to the solar facility<br/>inverter and/or point of interconnection to utility grid or customer<br/>electric meter.Agricultural ImpactThe Agreement between the Facility Owner and the Illinois
- Agricultural Impact I he Agreement between the Facility Owner and the Illinois Mitigation Agreement Department of Agriculture (IDOA) described herein. (AIMA)
- 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<br/>Facility OwnerA person or entity that owns a commercial solar energy facility. A<br/>Commercial Solar Energy Facility Owner is not nor shall it be<br/>to be a public utility as defined in the Public Utilities Act.
- County The County or Counties where the Commercial Solar Energy Facility is located.
- Construction The installation, preparation for installation and/or repair of a Facility.
- Cropland Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.

Deconstruction	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
Deconstruction Plan	A plan prepared by a Professional Engineer, at the Facility's expense, that includes:
	(1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things:
	<ul> <li>i. the number of solar panels, racking, and related facilities involved;</li> <li>ii. the original Construction costs of the Facility;</li> <li>iii. the size and capacity, in megawatts of the Facility;</li> <li>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);</li> <li>v. the Construction method and techniques for the Facility and for other similar facilities; and</li> </ul>
	(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.

FFP IL Community Solar, LLC Standard Solar Agricultural Impact Mitigation Agreement

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	An agency of the United States Department of Agriculture that
Conservation Service	provides America's farmers with financial and technical assistance
(NRCS)	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 rightof-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 The existence of drainage tile lines or underground utilities may practicable. 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**

FFP IL Community Solar, LLC The Illinois Department of Agriculture and 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 Champaign County within the State of Illinois

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

## STATE OF ILLINOIS DEPARTMENT OF AGRICULTURE

By: Jerry Costello II, Director

By Tess Feagans, General Counsel

801 E. Sangamon Avenue, 62702 State Fairgrounds, POB 19281 Springfield, IL 62794-9281

FFP IL Community Solar, LLC

Um perfec

By Yumitake Furukawa, Vice President

100 Montgomery Street, Suite 725 San Francisco, CA 94104

Address

November 9

2023

, 20 



## Distributed Energy Resource Pre-Application Report DER-17787

## **DER Site Information**

Project name: Jill Bonacci
Generation type: Solar - Tracking
Generation nameplate capacity: 5000 kW AC
Project address: 4229 E Windsor Rd, Urbana IL 61802
Project GPS coordinates: 40.080946, -88.164463
Developer name: Forefront Power

## **Distribution System Data**

Circuit #1: URBANA PHILO RD R61242

Circuit configuration: Radial

Number and size of phase conductors at proposed POI:

Single-Phase, 1/0 ACSR

Distance from proposed POI to three-phase in circuit miles (if applicable):

2.82 circuit miles

Primary circuit voltage at the POI: 12.47 kV

Existing total generation connected to substation: 0.61 MW

**Existing total generation connected to circuit:** 0.35 MW

Queued total generation connected to substation: 4 MW\*

List queued project sizes with cost estimate, if known:

DER08050 - 2MW - \$18070 DER08049 - 2MW - \$176650

Queued total generation connected to circuit: 4 MW\*



List queued project sizes with cost estimate, if known:

DER08050 - 2MW - \$18070 DER08049 - 2MW - \$176650

\*Please note that the aggregate size and list of queued projects on the circuit/substation do not include projects that may impact the interconnection application timeline due to shared impacts on the sub-transmission or transmission system, as that requires a study to determine.

Substation transformer normal rating: 21.59 MVA\*\*

Feeder exit limiting element and normal rating:

Voltage Regulator, 12.02 MVA\*\*

## Minimum conductor or device rating between the substation and the POI:

1.08 MVA\*\*

\*\*Please note that Ameren Illinois distribution planning requirements limit conductor and device utilization to 90% of the normal rating to account for system contingencies. The values in this report do not reflect 90% ratings.

## **Circuit loading information:**

Asset	Peak Load (MVA)	Daytime Minimum Load* (MVA)	Absolute Minimum Load (MVA)
URBANA	14.32	4.32	4.32
PHILO RD			
Substation			
R61242	5.62	1.59	1.59

Distance between substation and proposed POI in circuit miles: 3.5 circuit miles

List the type and rating of all protective devices between the substation transformer and the proposed POI:

200V4L RECLOSER - 200A WESTINGHOUSE BREAKER - 800A

List the type and rating of all voltage regulating devices between the substation and the POI, including a LTC if applicable:

```
SIEMENS JFR REGULATOR - 328A
```



List any constraints (existing or anticipated) that are known that may affect the proposed DER interconnecting on this circuit:

NA

## Circuit #2: URBANA PERKINS RD R60551

Circuit configuration: Radial

## Number and size of phase conductors at proposed POI:

Single-Phase, #6 CU

Distance from proposed POI to three-phase in circuit miles (if applicable):

3.15 circuit miles

Primary circuit voltage at the POI: 12.47 kV

Existing total generation connected to substation: 4.85 MW

Existing total generation connected to circuit: 0.48 MW

Queued total generation connected to substation: 6.036 MW\*

List queued project sizes with cost estimate, if known:

DER05691 - 2MW - \$106830 DER05146 - 2MW - \$47897 DER05437 - 2MW - \$47897 DER13847 - 0.036MW - COST TBD

## Queued total generation connected to circuit: 0 MW\*

List queued project sizes with cost estimate, if known:

NA

\*Please note that the aggregate size and list of queued projects on the circuit/substation do not include projects that may impact the interconnection application timeline due to shared impacts on the sub-transmission or transmission system, as that requires a study to determine.

## Substation transformer normal rating: 21.96 MVA\*\*

Feeder exit limiting element and normal rating:



## Minimum conductor or device rating between the substation and the POI:

0.65 MVA\*\*

\*\*Please note that Ameren Illinois distribution planning requirements limit conductor and device utilization to 90% of the normal rating to account for system contingencies. The values in this report do not reflect 90% ratings.

## **Circuit loading information:**

Asset	Peak Load (MVA)	Daytime Minimum Load* (MVA)	Absolute Minimum Load (MVA)
URBANA	15.19	3.84	3.84
PERKINS RD			
Substation			
R60551	7.67	1.94	1.94

Distance between substation and proposed POI in circuit miles: 6.67 circuit miles

List the type and rating of all protective devices between the substation transformer and the proposed POI:

100L RECLOSER - 100A 280V4L RECLOSER - 280A WESTINGHOUSE BREAKER - 600A

List the type and rating of all voltage regulating devices between the substation and the POI, including a LTC if applicable:

7620-219A-167KVA REGULATOR - 260A COOPER VR32 REGULATOR - 328A

List any constraints (existing or anticipated) that are known that may affect the proposed DER interconnecting on this circuit:

NA

**Disclosure of Contingent Upgrades** 



Contingent upgrades are distribution system modifications that have been identified during the interconnection project for queued DER systems that impact more of the distribution system than the point on the system where the proposed DER system is making a POI. The thresholds below are considering the estimated interconnection costs of queued projects on the substation and/or circuit that this pre-application report is providing information for; this is not meant to be an estimated interconnection cost for the proposed project in this pre-application request.

## Circuit #1: URBANA PHILO RD R61242

Are there distribution facility (69kV and below) contingent replacement/upgrades of \$50,000 or greater? No

Are there distribution substation transformer contingent replacement/upgrades of **\$100,000 or greater?** No

Are there transmission facility (>69kV) contingent replacement/upgrades of \$100,000 or greater? No

## Circuit #2: URBANA PERKINS RD R60551

Are there distribution facility (69kV and below) contingent replacement/upgrades of \$50,000 or greater? No

Are there distribution substation transformer contingent replacement/upgrades of \$100,000 or greater? No

Are there transmission facility (>69kV) contingent replacement/upgrades of \$100,000 or greater? No

Report prepared by Ryan Vogt

## **SOLECTRIA® XGI 1500-250 SERIES**

## PREMIUM 3-PHASE TRANSFORMERLESS UTILITY-SCALE INVERTERS

## FEATURES

- NEW and MORE POWERFUL!
  - XGI 1500-250/250-600
  - XGI 1500-225-600 (Selectable: 225kW/225kVA or 225kW/250kVA)
  - XGI 1500-200/200-480
  - XGI 1500-175-480 (Selectable: 175kW/175kVA or 175kW/200kVA)
- Industry-leading maximum DC/AC Ratio of 2.0
- Accepts two input PV Output Circuits, with no overcurrent protection required
- Made in the USA with global components
- Buy American Act (BAA) compliant
- 99.0% peak efficiency
- Flexible solution for distributed and centralized system architecture
- Advanced grid-support functionality Rule 21/UL1741SB
- Robust, dependable and built to last
- Lowest O&M and installation costs
- Access all inverters on site via WiFi from one location
- Remote diagnostics and firmware upgrades
- SunSpec Modbus Certified
- Tested compatible with the TESLA PowerPack Microgrid System

## OPTIONS

- PV Source Circuit Combiners
- Web-based monitoring
- Extended warranty



Yaskawa Solectria Solar is pleased to introduce its most powerful XGI 1500 inverters, with the XGI 1500-250 models at 600 Vac, and the XGI 1500-200 models for 480 Vac service.



The XGI 1500-250 and XGI 1500-200 feature SiC technology, high power and high efficiency that places them at the top end of the utilityscale string inverters in the market.

Yaskawa Solectria Solar designs all XGI 1500 utility-scale string inverters for high reliability and builds them with the highest quality components -- selected, tested and proven to last beyond their warranty. The XGI 1500 inverters provide advanced grid-support functionality and meet the latest IEEE 1547 and UL 1741 standards for safety.

The XGI 1500 inverters provide ideal solutions for ground-mounted utility-scale PV systems, with models available for service connections at 600 Vac and 480 Vac. Designed and engineered in Lawrence, MA, the SOLECTRIA XGI inverters are assembled and tested at Yaskawa America's facilities in Buffalo Grove, IL. The XGI 1500 inverters are Made in the USA with global components, and are compliant with the Buy American Act.



## SPECIFICATIONS

		XGI 1500 INVERTER MODEL					
PRODUCT SPECIFIC	ATION	XGI 1500 250/250-600	XGI 1500 225-600	XGI 1500 200/200-480	XGI 1500 175-480		
	Absolute Maximum Input Voltage	1500 VDC					
	Maximum Power Voltage Range (MPPT)	860-1250 VDC 750-1250 VDC					
	Operating Voltage Range (MPPT)	860-14	50 VDC				
	Number of MPP Trackers		1 M	PPT			
DC Input	Maximum Operating Input Current	296.7 A	267 A	237.3 A	207.6 A		
o mput	Maximum Operating PV Power	255 kW	230 kW	204 kW	179 kW		
	Maximum DC/AC Ratio   Max Rated PV Power	2.0   500 kW	2.22   500 kW	2.5   500 kW	2.86   500 kW		
	Max Rated PV Short-Circuit Current (∑lsc x 1.25)		80	0 A			
	Nominal Output Voltage	600 VAC	, 3-Phase	480 VAC	, 3-Phase		
	AC Voltage Range			o +10%			
	Continuous Real Output Power	250 kW	225 kW	200 kW	175 kW		
	Continuous Apparent Output Power (kVA)	250	250 225	200	200 175		
AC Output	Maximum Output Current (A <sub>RMS</sub> )	240.6	XGI 1500- 225/225: 216.5 225/250: 240.6	240.6	XGI 1500- 175/175: 210.5 175/200: 240.6		
	Fault Current Contribution (1 cycle RMS)	390 A	390 A 351 A	312 A	312 A 273 A		
	Conductor Compatibility	600 kci	mil max, Cu or Alum		with lugs		
F	Nominal Output Frequency			Hz			
	Power Factor (Unity default)		+/- 0.80 A	Adjustable			
	Total Harmonic Distortion	< 5%					
	(THD) @ Rated Load						
	Grid Connection Type	3-Ph + N/GND					
Efficiency	Peak Efficiency CEC Average Efficiency	99.0% 98.5%					
Inclency	Tare Loss			W			
	Ambient Temperature Range			(-40°C to 60°C)			
	De-Rating Temperature	113°F (45°C)	127°F (53°C)	113°F (45°C)	131°F (55°C)		
Temperature	Storage Temperature Range	110 1 (40 0)		(-40°C to 75°C)			
lemperature	Relative Humidity (non-condensing)			95%			
	Operating Altitude			t (3 km)			
	Advanced Graphical User Interface			'iFi			
	Communication Interface		Ethe	ernet			
Communications	Third-Party Monitoring Protocol		SunSpec Mc	odbus TCP/IP			
	Web-Based Monitoring		Opti	ional			
	Firmware Updates		Remote o	and Local			
Teching 9	Safety Listings & Certifications	UL 1699b	UL 1741, IEEE Photovoltaic Arc-Fa	1547, UL 1998, ult Circuit Protectic	on Certified		
Testing & Certifications	Advanced Grid Support Functionality		Rule 21, l	JL 1741SB			
	Testing Agency		E.	TL			
	FCC Compliance	FCC Part 15 (Subpart B, Class A)					
Warranty	Standard and Options		5 Years Standard;	Option for 10 Years			
	Acoustic Noise Rating		-	; 67dBA @ 3 m			
	DC Disconnect		Integrated 2-Pole 4		t		
	Mounting Angle			al only			
Enclosure	Dimensions	Height	: 29.5 in. (750 mm)   Dopth: 15.4 i		5 mm)		
	Weight		•	n. (390 mm) (131.5 kg)			
	Enclosure Rating and Finish		290 lbs C IP66, Type 3R, Poly	-	od Aluminum		





IT'S PERSONAL

Yaskawa Solectria Solar 1-978-683-9700 | Email: sales@solectria.com | solectria.com Document No. FL.XGI1500-04 | 10/04/2023 | © 2021 Yaskawa America, Inc.

## Hi-MO 5

# LR5-72HBD **530~550M**

- Based on M10 wafer, best choice for ultra-large power plants
- Advanced module technology delivers superior module efficiency
   M10 Gallium-doped Wafer
   Smart Soldering
   9-busbar Half-cut Cell
- Globally validated bifacial energy yield
- High module quality ensures long-term reliability



12-year Warranty for Materials and Processing

30-year Warranty for Extra Linear Power Output

### Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730 ISO9001:2015: ISO Quality Management System ISO14001: 2015: ISO Environment Management System ISO45001: 2018: Occupational Health and Safety IEC62941: Guideline for module design qualification and type approval





## Cases 126-S-23 #25-S 72HBD 530~550M<sup>f 2</sup>



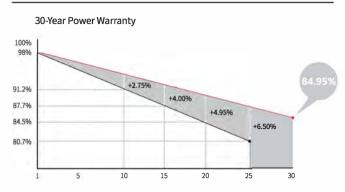
Hi-MO 5

ω FIRST YEAR POWER DEGRADATION

0.45% YEAR 2-30 POWER DEGRADATION

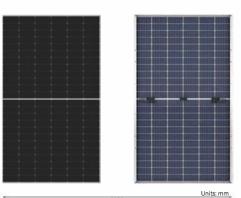
## HALF-CELL Lower operating temperature

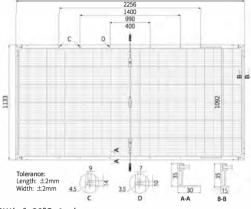
#### **Additional Value**



#### **Mechanical Parameters**

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm², +400, -200mm/±1400mm
Output Cable	length can be customized
Glass	Dual glass, 2.0+2.0mm heat strengthened glass
Frame	Anodized aluminum alloy frame
Weight	32.3kg
Dimension	2256×1133×35mm
Packaging	31pcs per pallet / 155pcs per 20' GP / 558pcs per 40' HC





#### **Electrical Characteristics** STC: AM1.5 1000W/m<sup>2</sup> 25°C NOCT: AM1.5 800W/m<sup>2</sup> 20°C 1m/s Test uncertainty for Pmax: $\pm 3\%$

					- /		1.	,		
Module Type	LR5-72+	IBD-530M	LR5-72H	BD-535M	LR5-72	HBD-540M	LR5-72H	IBD-545M	LR5-72HI	3D-550M
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	530	396.2	535	399.9	540	403.6	545	407.4	550	411.1
Open Circuit Voltage (Voc/V)	49.20	46.26	49.35	46.40	49.50	46.54	49.65	46.68	49.80	46.82
Short Circuit Current (Isc/A)	13.71	11.07	13.78	11.12	13.85	11.17	13.92	11.23	13.99	11.29
Voltage at Maximum Power (Vmp/V)	41.35	38.58	41.50	38.72	41.65	38.86	41.80	39.00	41.95	39.14
Current at Maximum Power (Imp/A)	12.82	10.27	12.90	10.33	12.97	10.39	13.04	10.45	13.12	10.51
Module Efficiency(%)	2	0.7	2	).9	2	21.1	2	1.3	21	5

#### Electrical characteristics with different rear side power gain (reference to 540W front)

	-	0 1	,		
Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmaxgain
567	49.50	14.54	41.65	13.61	5%
594	49.50	15.23	41.65	14.26	10%
621	49.60	15.92	41.75	14.91	15%
648	49.60	16.62	41.75	15.56	20%
675	49.60	17.31	41.75	16.21	25%

#### **Operating Parameters**

-40°C ~ +85°C	
0~3%	
±3%	
DC1500V (IEC/UL)	
30A	
45±2°C	
Class II	
70±5%	
UL type 29 IEC Class C	
	0 ~ 3% ±3% DC1500V (IEC/UL) 30A 45±2°C Class II 70±5% UL type 29

#### **Mechanical Loading**

<u> </u>	
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

#### **Temperature Ratings** (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.265%/°C
Temperature Coefficient of Pmax	-0.340%/°C



No.8369 Shangyuan Road, Xi'an Economic And Technological Development Zone, Xi'an, Shaanxi, China. Web: www.longi.com

Specifications included in this datasheet are subject to change without notice. LONGi reserves the right of final interpretation. (20220815V16)

A DECOMMISSIONING PLAN FOR

# Bonacci 1 Solar Project Champaign County, Illinois

PREPARED FOR:





PREPARED BY:

Westwood

## Westwood

## Decommissioning Plan

Bonacci 1 Solar Project

Champaign County, Illinois

Prepared for:

Forefront Power, LLC 100 Montgomery Street, #725 San Francisco, CA 94104 Prepared by:

Westwood Professional Services 12701 Whitewater Drive, Suite 300 Minnetonka, MN 55343 (952) 937-5150



License Exp. 11/30/2025 Design Firm #184-005853

Multi-Disciplined Surveying & Engineering westwoodps.com

Project Number: 00458981.03 Date: January 4, 2024

January 4, 2024

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## Attachments

Attachment A: Decommissioning Cost Estimate

January 4, 2024

## 1.0 Introduction / Project Description

This Decommissioning Plan ("Plan") has been prepared for the Bonacci 1 Solar Project (Facility) in accordance with the Champaign County (County) Zoning Ordinance, Section 6.1.5 (Ordinance) and the Illinois Department of Agriculture (IDOA) Agricultural Impact Mitigation Agreement (AIMA). The purpose of the Plan is to describe the means and methods that can be used to remove all structures, foundations, underground cables, and equipment and to reclaim and restore the land altered during the construction and operation of the solar project to its predevelopment condition to the extent feasible.

The Facility is a 4.5-Megawatt (MW) alternating current (6.66-MW direct current) solar power generation project proposed by Forefront Power, LLC (Owner) in Champaign County, Illinois. Upon completion, the Facility will comprise a solar array consisting of ground-mounted photovoltaic panels and electrical support equipment, collection lines, access roads, and fencing. The Facility is located on approximately 29.54 acres and shares some Facility infrastructure with the adjacent Bonacci 2 Solar Facility.

The useful life of solar panels is generally considered to be 35 years. At that time, the project will either be decommissioned or repowered with newer technology. The Plan identifies components which may be removed and areas that may be restored once the Facility has not operated for six consecutive months, or when the Facility has surpassed the useful lifespan of the modules and facilities.

## 2.0 Proposed Future Land Use

Prior to the development of the Facility, the land use of the project area was primarily agricultural. After all equipment and infrastructure is removed during decommissioning, any holes or voids created by poles, concrete pads, and other equipment will be filled in with native soil to the surrounding grade, and the site will be restored to pre-construction conditions to the extent practicable. All access roads and other areas compacted by equipment will be decompacted to a depth necessary to ensure drainage of the soil and root penetration prior to fine grading and tilling to a farmable condition. Please refer to Section 3.2 for a detailed description of reclamation activities.

## 3.0 Decommissioning Activities

Decommissioning of the solar facility will include removing the solar panels, solar panel racking, steel foundation posts and beams, inverters, transformers, overhead and underground cables and lines, equipment pads and foundations, equipment cabinets, and ancillary equipment. The civil facilities, access roads, and security fence are included in the scope. Standard decommissioning practices will be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements.

During decommissioning, the landowners will be consulted to identify the extent and type of

work to be completed. Some Facility infrastructure, such as the access roads, may be left in place at the landowners' requests. In accordance with AIMA, underground utility lines, if deeper than five feet below ground surface elevation, will be left in place to minimize land disturbance and associated impacts to future land use.

Decommissioning will include the removal and transportation of all project components from the Facility site. All dismantling, removal, recycling, and disposal of materials generated during decommissioning will comply with rules, regulations, and prevailing Federal, State, and local laws at the time decommissioning is initiated and will use approved local or regional disposal or recycling sites as available. Recyclable materials will be recycled to the furthest extent practicable. Non-recyclable materials will be disposed of in accordance with State and Federal law.

## 3.1 Decommissioning of Project Components

## 3.1.1 Modules

Modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed, palletized, and shipped to an offsite facility for reuse or resale. Non-functioning modules will be shipped to the manufacturer or a third party for recycling or disposal.

## 3.1.2 Racking

Racking and racking components will be disassembled and removed from the steel foundation posts, processed to appropriate size, and sent to a metal recycling facility.

## 3.1.3 Overhead and Underground Cables and Lines

All underground cables and conduits will be removed if less than 5 feet below ground surface in accordance with AIMA requirements. It is assumed that the DC cables will be run on an aboveground CAB system, therefore removal of all DC cables has been included in the estimate. AIMA also requires that cables be installed 5 feet below ground surface in agricultural areas, therefore this cost estimate assumes that only underground AC cables running to surface equipment will require removal. Topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. The subgrade will be compacted per standards. Topsoil will be redistributed across the disturbed area. Overhead lines will be removed from the project and taken to a recycling facility.

## 3.1.4 Inverters, Transformers, and Ancillary Equipment

All electrical equipment will be disconnected and disassembled. All parts will be removed from the Facility and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

## 3.1.5 Equipment Foundations and Ancillary Foundations

The ancillary foundations are pile foundations for the equipment pads. As with the solar array steel foundation posts, the foundation piles will be pulled out completely. All unexcavated areas compacted by equipment used in decommissioning will be decompacted in a manner to adequately restore the topsoil and sub-grade material to a density similar to the surrounding soils. All materials will be removed from the site and reconditioned and reused, sold as scrap,

recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

## 3.1.6 Fence

All fence parts and foundations will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. The surrounding areas will be restored to pre-solar farm conditions to the extent feasible.

### 3.1.7 Access Roads

Facility access roads will be used for decommissioning purposes, after which removal of roads will be discussed with the Landowner and one of the following options will be pursued:

- 1. After final clean-up, roads may be left intact through mutual agreement of the landowner and the owner unless otherwise restricted by federal, state, or local regulations.
- 2. If a road is to be removed, aggregate will be removed and shipped from the site to be reused, sold, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. All internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. Any ditch crossing connecting access roads to public roads will be removed unless the landowner requests it remains. The subgrade will be decompacted using a chisel plow or other appropriate subsoiling equipment. All rocks larger than four inches will be removed. Topsoil that was stockpiled during the original construction will be distributed across the open area. The access roads and adjacent areas that are compacted by equipment will be decompacted.

## 3.1.8 Restoration of Public Roads

As required by Section 6.1.5Q(2), this Plan includes provisions for repairs to public streets used during decommissioning and reclamation of the site. Public roads that will be used to haul materials and equipment during decommissioning efforts are generally multi-lane and paved. Prior to decommissioning, the Applicant, its successors in interest, and all parties to this Plan are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority, per Section 6.1.5Q(3). The agreement will establish the protocol for documenting the condition of roadways before and after decommissioning, as well as any obligations to repair the roads from damages sustained.

## 3.2 Reclamation

The Owner will restore and reclaim the site to the pre-solar farm condition consistent with the County Ordinance and AIMA. The Owner assumes that the site will be returned to farmland after decommissioning through implementation of appropriate measures to facilitate such uses. Soil testing will be performed to determine if any contaminants from equipment are present in the soil. In addition to the reclamation activities described above for each decommissioning activity, all unexcavated areas compacted by equipment and activity during the decommissioning will be decompacted in accordance with the AIMA Decompaction Guidance Document to ensure proper density of topsoil consistent and compatible with the surrounding area and associated land use. All materials and debris associated with the Facility

decommissioning will be removed and properly recycled or disposed of at off-site facilities.

## 3.2.1 Backfill of Excavations

Per Section 6.1.5Q(3)k of the Ordinance, the excavation resulting from the removal of foundation concrete shall be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original Project construction. A lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade. Native soils excavated during construction of the Project may be stockpiled and seeded throughout the operating lifetime of the Project. These native soils may then be used for backfill.

If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist or Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the County Zoning Administrator.

An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.

## 4.0 Best Management Practices (BMPs)

During decommissioning, erosion and sediment control BMPs will be implemented to minimize potential for erosion of site soils and sedimentation of surface waters and waters of the state. Because decommissioning will entail disturbance of more than one acre of soil, the Owner will prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain coverage under the state-specific National Pollutant Discharge Elimination System (NPDES) permit prior to initiating soil disturbing activities. Potential BMPs to be implemented during decommissioning activities are described below and will be subject to refinement in the SWPPP. The decommissioning team will review the permitting requirements at the time of decommissioning and obtain any other necessary permits, which may include a US Army Corps of Engineers Section 404 Permit to Discharge Dredged or Fill Material.

## 4.1 Erosion Control

Erosion control measures will be refined based on the standard of practice current at the time the SWPPP is developed for decommissioning. All disturbed areas without permanent impermeable or gravel surfaces, or planned for use as crop land, will be vegetated for final stabilization. All slopes steeper than 4:1 should be protected with erosion control blankets. Restoration should include seed application prior to application of the blanket. All slopes 4:1 or flatter should be restored with seed and mulch, which will be disc anchored.

## 4.2 Sediment Control

Sediment controls, such as silt fence, fiber logs, dewatering practices, construction entrances, and sedimentation traps and/or basins will be implemented during construction to prevent the

#### Decommissioning Plan | Bonacci 1 Solar Project

transport of sediment off-site during decommissioning activities. Street sweeping/scraping will also be implemented to mitigate potential tracking of sediment onto public roadways.

## 4.3 Controlling Stormwater Flowing onto and Through the Project

Given the low gradient of the slopes in the project area, controlling stormwater flow that enters the project area will likely require minimal effort during decommissioning activities. Only newly disturbed areas may require new, temporary stormwater control.

## 4.4 Permitting

All decommissioning and reclamation activities will comply with Federal and State permit requirements. Decommissioning activities that will disturb more than one acre of soil will require coverage under the state-specific NPDES permit for construction stormwater. The permits will be applied for and received prior to decommissioning construction activities commencing. A SWPPP will be developed prior to filing for construction stormwater permit coverage.

If necessary for decommissioning activities, wetlands and waters permits will be obtained from the US Army Corps of Engineers (USACE) or the Illinois Department of Natural Resources (IDNR). A Spill Prevention, Control, and Countermeasure (SPCC) Plan for decommissioning will likely also be required for decommissioning work.

Please see below for a table listing the potentially necessary permits for decommissioning the Facility.

ENTITY	Type of Permit	Description
US EPA/USACE	Wetland and water quality protection under Clean Water Act §§ 401 and 404	Section 401/404 permit or coverage under a nationwide permit if the decommissioning will impact wetlands or waters of the United States
ILLINOIS EPA	NPDES permit for construction activities, including Storm Water Pollution Prevention Plan (SWPPP)	Preparation and electronic submittal of SWPPP and Notice of Intent, as well as permit fee, to Illinois EPA for coverage under Illinois General Storm Water NPDES Permit for Construction Activities (ILR10).
ILL. DEPT. OF TRANSPORTAT ION (IDOT)	Size and weight limitations for vehicles on any Illinois roads.	Permits for over-size or over-weight vehicles.
IDOT	Permits required for driveway entrance.	Permits for work that may damage state roads or constructing/modifying entrances/exits to state roads.
IDOT	Permits required for road work	Permits for utility work in IDOT right-of-ways

## POTENTIALLY NECESSARY PERMITS FOR DECOMMISSIONING

## 4.5 Health and Safety Standards

Work will be conducted in strict accordance with the Owner's health and safety plan. The construction contractor hired to perform the decommissioning will also be required to prepare a

site-specific health and safety plan. All site workers, including subcontractors, will be required to read, understand, and abide by the Plans. A site safety office will be designated by the construction contractor to ensure compliance. This official will have stop-work authority over all activities on the site should unsafe conditions or lapses in the safety plan be observed.

## 5.0 Timeline

Decommissioning of the solar farm will be initiated if the project has not produced electricity for a period of up to 12 months. It is anticipated that the decommissioning activities for the project can be completed in an 8-week period. The estimated costs for decommissioning are tied to assumptions about the amount of equipment mobilized, the crew sizes, weather and climate conditions, and the productivity of the equipment and crews.

## 6.0 Decommissioning Costs

## 6.1 Cost and Salvage Estimates

The decommissioning costs are calculated using current pricing. The purpose of updating the estimate is to recognize price trends for both decommissioning costs and the salvage and resale values of the components, as well as to reflect any current construction means and methods.

There are currently active markets for scrap steel, aluminum, and copper, used transformers and electrical equipment, and used solar panels. Scrap metal prices have been discounted from posted spot prices found on www.scrapmonster.com. Pricing for used panels has been discounted from prices received from We Recycle Solar for a similar project. The pricing of the used panels has incorporated the degradation from five years of use as warrantied by the manufacturer (not more than 0.5% per year).

Bonacci 1 Solar Project shall provide a detailed Decommissioning Cost Estimate, prepared by an Illinois Licensed Professional Engineer, prior to the issuance of building permits, which shall include the following:

- a) Three (3) individual, gross estimated costs to perform decommissioning for: aboveground restoration, belowground restoration, and environmental remediation as set forth in Section 2 above ("Gross Cost");
- b) An increase of the Gross Cost by 25% to eliminate any discrepancy in cost estimation techniques ("Contingency");
- c) The estimated resale and salvage values associated with the Project equipment ("Salvage Value");
- d) A reduction from the Salvage Value by 30%, such that only 70% of the Salvage Value can be used as a credit against the Gross Cost and Admin Factor. The Salvage Value multiplied by the 70% is the ("Salvage Credit").

Thus, the Decommissioning Cost Estimate formula is: Gross Cost + Contingency – Salvage Credit = the "Decommissioning Cost Estimate". The Gross Cost + Contingency for the Bonacci 1 Solar Project is approximately \$696,593 with a Salvage Credit of \$518,815. Therefore, the Decommissioning Cost Estimate is \$177,778.

January 4, 2024

## 6.2 Financial Assurance Plan

Forefront Power, LLC shall provide an amount equal to the one hundred twenty-five percent (125%) the Decommissioning Cost Estimate (as determined by an Illinois-Licensed Professional Engineer), ("Decommissioning Security"). All financial assurances required by the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall count towards the total financial assurance. Decommissioning Security shall be provided by the Owner prior to the Commercial Operation Date.

The Decommissioning Security will be in the form of an irrevocable letter of credit and an escrow account with the Champaign County Board as a beneficiary per Section 6.1.5 Q(4) of the Solar Ordinance. The County has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits, and the Applicant, its successors in interests, and all parties to decommissioning shall adjust the amount of financial assurance in escrow to ensure that it reflects current and accurate information. Unless the County states otherwise, the Champaign County State's Attorney's Office shall review and approve every Letter of Credit prior to Zoning Administrator Acceptance. Decommissioning estimates will be updated once every three (3) years for the first twelve (12) years of operation, and every other year thereafter. Estimates will be created by an Independent Illinois Licensed Professional Engineer.

Per section 6.1.5 Q.(4)a.(a) of the Solar Ordinance, the Applicant proposes to provide financial assurance using the following phased approach:

- 1. 12.5% of the decommissioning cost estimate, above, prior to authorization of the Zoning Use Permit for construction of the solar farm;
- 2. 62.5% of the most recent decommissioning cost estimate on or before the sixth anniversary of the Commercial Operation Date; and
- 3. 125% of the most recent decommissioning cost estimate on or before the 11<sup>th</sup> anniversary of the Commercial Operation Date.

## 6.3 Use of Funds

Per Section 6.1.1A(9) of the Ordinance, the Zoning Administrator may draw on the funds for decommissioning of the solar facility when any of the following occur:

- a. No response is received from the landowner withing thirty (30) days from initial notification by the Zoning Administrator;
- b. The landowner does not enter, or breaches any term of a written agreement with the County to remove the Project;
- c. Any breach or performance failure of any provision of this Plan;
- d. The owner of record has filed a bankruptcy petition, or compromised the County's interest in the letter of credit in any way not specifically allowed by this Plan;
- e. A court of law has made a finding that the Project constitutes a public nuisance;
- f. The owner of record has failed to replace an expiring letter of credit within the deadlines set forth in Section 6.1.1A.6 of the Ordinance; or
- g. Any other conditions to which to the County and the landowner mutually agree;

Additionally, per Section 6.1.5Q(5) of the Ordinance, the Zoning Administrator may draw on the funds for decommissioning of the project when any of the following occur:

- a. In the event that the Project or component thereof ceases to be functional for more than six months after it starts producing electricity of the Owner is not diligently repairing the Project or component;
- b. In the event that the Owner declares the Project or any Project component to be functionally obsolete for tax purposes.
- c. There is a delay in the construction of the Project of more than 6 months after construction on that Project begins.
- d. The Project or any components thereof that appears in a state of disrepair or imminent collapse and/or creates an imminent threat to the health or safety of the public or any person.
- e. The Project or any components thereof that is otherwise derelict for a period of 6 months.
- f. The Project is in violation of the terms of the SUP for a period exceeding ninety (90) days.
- g. The Applicant, its successors in interest, and all parties to this Plan has failed to maintain financial assurance in the form and amount required by the SUP or compromised the County's interest in this Plan.
- h. The County discovers any material misstatement of fact of misleading omission of fact made by the Applicant in the course of the SUP Zoning Case.
- i. The Applicant has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.5D. of the Ordinance or failed to submit it to the County within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification.

Per Section 6.1.5Q.(6), the Zoning Administrator may, but is not required to, deem the Project abandoned, or the standards set forth in Section 6.1.5Q.5. met, with respect to some, but not all, of the Project. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the Project only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining Project.

## 6.4 Standard Conditions for Decommissioning

The following conditions shall apply, per Section 6.1.5Q(3) of the Ordinance:

- a. The applicant or successor shall notify the County by certified mail of the commencement of voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of proceeding.
- b. The applicant shall agree that the sale, assignment in fact or law, or such other transfer of applicant's financial interest in the Project shall in no way affect or change the applicant's obligation to continue to comply with the terms of this plan. Any successor in interest, assignee, and all parties to this Plan shall assume the terms, covenants, and obligations of this plan and agrees to assume all reclamation liability and responsibility for the Project.
- c. The County and its authorized representatives are authorized for right of entry onto the Project premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary.
- d. At such time as decommissioning takes place, the Applicant, its successors in interest, and all parties to this Plan are required to enter into a Roadway Use and Repair

Agreement with the relevant highway authority.

- e. The Applicant, its successors in interest, and all parties to this Plan shall provide evidence of any new, additional, or substitute financing or security agreement to the Zoning Administrator throughout the operating lifetime of the project.
- f. The Applicant, its successors in interest, and all parties to this Plan shall be obliged to perform the work in this Plan before abandoning the Project or prior to ceasing production of electricity from the Project, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial assurance and shall not be limited by the amount of financial assurance. The obligation to perform the reclamation work shall constitute a covenant running with the land.
- g. This plan shall provide for payment of any associated costs that Champaign County may incur in the event that decommissioning is actually required. Associated costs include all administrative and ancillary costs associated with drawing upon the financial assurance and performing the reclamation work and shall include but not be limited to: attorney's fees; construction management and other professional fees; and, the costs of preparing requests for proposals and bidding documents required to comply with State law or Champaign County purchasing policies.
- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator (see Section 2.3 of this Plan.)
- i. Underground electrical cables of a depth of 5 feet or greater may be left in place (see Section 2.5 of this Plan).
- j. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows. Please see Section 2.8.2 of this Plan for this information as it pertains to site restoration:
  - a. The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original Project construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
  - b. The native soils excavated at the time of the original Project construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the Project. The methods for storing the excavated native soils during the operating lifetime of the Project shall be included in the decommissioning and site reclamation plan.
  - c. If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist of Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.
  - d. An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of

productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.

- k. Should this Plan be deemed invalid by a court of competent jurisdiction, the Project's SUP shall be deemed void.
- I. The Applicant's obligation to complete this Plan and to pay all associated costs shall be independent of the Applicant's obligation to provide financial assurance.
- m. The liability of the Applicant's failure to complete the decommissioning and site reclamation plan or any breach of this Plan's requirements shall not be capped by the amount of financial assurance.
- n. If the Applicant desires to remove equipment or property credited to the estimated salvage value without the concurrent replacement of the property with property of equal or greater salvage value, or if the Applicant installs equipment or property increasing the cost of decommissioning after the Project begins to produce electricity, at any point, the Applicant shall first obtain the consent of the Zoning Administrator. If the Applicant's lien holders remove equipment or property credited to the salvage value, the Applicant shall promptly notify the Zoning Administrator. In either of these events, the total financial assurance shall be adjusted to reflect any change in total salvage value and total decommissioning costs resulting from any such removal or installation.

# Attachment A

# Decommissioning Cost Estimate

## Bonacci 1 Solar Project

	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	Lump Sum	\$27,900.00	\$27,900
Mobilization was estimated to be approximately 7% of total cost of other items				
Permitting				
County Permits	1	Lump Sum	\$10,000.00	\$10,000
State Permits	1	Lump Sum	\$20,000.00	\$20,000
Subtotal Permitting Decommissioning will require SWPPP and SPCC Plans. Cost is an estimate of the Civil Infrastructure	permit prep	aration cost.		\$30,000
	490	Cubic Vords (D)/)	¢2.60	¢1 202
Remove Gravel Surfacing from Road Haul Gravel Removed from Road to Landfill (Clinton, IL)	480 600	Cubic Yards (BV) Cubic Yards (LV)	\$2.69 \$6.61	\$1,293 \$3,969
Dispose of Gravel Removed from Road to Landfill uses as Daily Cover)	778	Tons	\$0.01	\$3,969 \$0
Remove Geotextile Fabric from Beneath Access Roads	2,702	Square Yards	\$0.00 \$1.40	\$0 \$3,783
Haul Geotech Fabric to Landfill (Clinton, IL)	0.7	Tons	\$18.21	\$3,783 \$14
Dispose of Geotech Fabric	0.7	Tons	\$18.21	\$60
Remove and Load Culvert from Beneath Access Roads	1	Each	\$420.00	\$420
Haul Culvert Removed from Access Roads to Landfill (Clinton, IL)	0.3	Tons	\$18.21	\$420 \$5
Dispose of Culvert	0.3	Tons	\$81.00	\$24
Grade Road Corridor (Re-spread Topsoil)	1,216	Linear Feet	\$1.69	\$2,057
Decompact Road Area	0.6	Acres	\$89.03	\$50
Remove Chainlink Fence	4,890	Linear Feet	\$7.22	\$35,306
Nemove chammin rence			\$5.46	
Haul Chainlink Fence to Metal Recycling (Urbana, IL) Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood.	26 leans cost fo	Tons or Champaign, IL, ai	· · · · ·	\$142 \$47,123 dards
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure	leans cost fo	or Champaign, IL, ai	nd industry stand	\$47,123 dards
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure Remove Steel Foundation Posts (Arrays, Equipment)	1eans cost fo 4,084	or Champaign, IL, ai Each	nd industry stand \$15.31	\$47,123 dards \$62,530
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure Remove Steel Foundation Posts (Arrays, Equipment) Haul Array Steel Post to Metal Recycling (Urbana, IL)	leans cost fo 4,084 294	or Champaign, IL, ai Each Tons	nd industry stand \$15.31 \$4.68	\$47,123 dards \$62,530 \$1,375
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure Remove Steel Foundation Posts (Arrays, Equipment) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String	1eans cost fo 4,084 294 932	or Champaign, IL, an Each Tons Each	nd industry stand \$15.31 \$4.68 \$92.77	\$47,123 dards \$62,530 \$1,375 \$86,466
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure Remove Steel Foundation Posts (Arrays, Equipment) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL)	1eans cost fo 4,084 294 932 350	Fach Each Tons Each Tons Each Tons	\$15.31 \$4.68 \$92.77 \$4.68	\$47,123 dards \$62,530 \$1,375 \$86,466 \$1,634
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure Remove Steel Foundation Posts (Arrays, Equipment) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL) Remove Drive Motor Posts	4,084 294 932 350 340	Each Tons Each Tons Each Tons Each	\$15.31 \$4.68 \$92.77 \$4.68 \$15.31	\$47,123 dards \$62,530 \$1,375 \$86,466 \$1,634 \$5,206
Subtotal Civil Infrastructure Civil removal costs are a combination of StDOT unit costs where applicable, RSN provided to Westwood. Structural Infrastructure Remove Steel Foundation Posts (Arrays, Equipment) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL) Remove Drive Motor Posts Haul Drive Motor Posts to Metal Recycling (Urbana, IL)	1eans cost fo 4,084 294 932 350	Fach Each Tons Each Tons Each Tons	\$15.31 \$4.68 \$92.77 \$4.68	\$47,123 dards \$62,530 \$1,375 \$86,466 \$1,634 \$5,206 \$114
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*Electrical removal costs of PV Panels and Combiner Boxes were based industry standard installation rates. Equipment pads, MV Equipment, and SCADA Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and RSMeans information on crew production rates.* 

Gen-Tie System				
Remove Overhead Cables	315	Feet	\$7.90	\$2,489
Loadout Overhead Cables	0.6	Tons	\$37.00	\$23
Haul Overhead Cables	0.6	Tons	\$4.68	\$3
Remove and Load Timber Transmission Poles	5	Each	\$417.97	\$2,090
Haul Timber Poles to Landfill (Clinton, IL)	16	Tons	\$18.21	\$296
Haul Hardware, Bracing, and Attachments to Landfill (Clinton, IL)	3	Cubic Yards	\$24.83	\$68
Dispose of Transmission Pole Components	5	Each	\$81.00	\$405
Topsoil and Revegetation at Removed Poles	5	Each	\$3.05	\$15
Subtotal Transmission System				\$5,388
Site Restoration				
Stabilized Construction Entrance	1	Each	\$2,000.00	\$2,000
Perimeter Controls (Erosion and Sediment Control)	2,445	Linear Feet	\$3.77	\$9,218
Permanent Seeding on Roadway Areas	0.6	Acres	\$5,307.87	\$2,963
Till to Farmable Condition on Array Areas	30	Acres	\$158.78	\$4,690
Subtotal Site Restoration				\$18,871
Project Management				
Project Manager	12	Weeks	\$3,749.00	\$44,988
Superintendent (half-time)	12	Weeks	\$1,762.50	\$21,150
Field Engineer (half-time)	12	Weeks	\$1,634.50	\$19,614
Clerk (half-time)	12	Weeks	\$375.00	\$4,500
Subtotal Project Management Standard industry weekly rates from RSMeans.				\$90,252
Subtotal Demolitions/Removals				\$546,347
Contingency (25%)				\$136,587
County Administration (2.5%)				\$13,659
				Ţ13,033
Subtotal Demolition and Administration Costs				\$696,593
Salvage				
Fencing (Chain Link)	26	Tons	\$207.52	\$5,404
Steel Posts	294	Tons	\$207.52	\$61,020
Module Racking	350	Tons	\$207.52	\$72,528
PV Modules	11,510	Each	\$42.08	\$484,292
Transformers and Inverters	3,746	Pounds	\$0.27	\$1,011
Transformers (Oil)	1,520	Gallons	\$0.70	\$1,064
DC Collection Lines (Copper)	116,500	Pounds	\$0.97	\$112,714
AC Collection Line Stub-Ups (Aluminum)	3,375	Pounds	\$0.74	\$2,481
Transmission Lines (Steel)	0.2	Tons	\$306.18	\$73
Transmission Lines (Aluminum)	786	Pounds	\$0.74	\$578
Subtotal Salvage				\$741,164
Salvage Credit				\$518,815
Salvage values are a combination of the following factors; current market	t metal salvade prid	es. current second	arv market for sol	

module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.

Decommissioning Cost Estimate (Gross Cost + Contingency – Salvage Credit)			\$177,778
Minimum Financial Assurance	30 Acres	\$1,000	\$29,540

Notes:

1. Prices used in analysis are estimated based on research of current average costs and salvage values.

2. Prices provided are estimates and may fluctuate over the life of the project.

3. Contractor means and methods may vary and price will be affected by these.

## Cost Estimate Assumptions

To develop a cost estimate for the decommissioning of the Bonacci 1 Solar Facility, Westwood engineers made the following assumptions and used the following pricing references. Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet. When publicly available bid prices or State Department of Transportation (DOT) bid summaries were not available for particular work items, we developed time- and material-based estimates considering composition of work crews and equipment and material required. While materials may have a salvage value at the end of the Facility life, the construction activity costs and the hauling/freight costs are separated from the disposal costs or salvage value to make revisions to salvage values more transparent.

- 1. This cost estimate has been prepared based on the preliminary site layout provided by Forefront Energy, LLC and dated May 2023. Quantities that were not available when this Decommissioning Plan was prepared were estimated based on projects of similar size and design.
- 2. A facility of this size and complexity requires a full-time project manager with half-time support staff.
- 3. Common labor will be used for the majority of tasks, supplemented by electricians, steel workers, and equipment operators where labor rules may require. Since State DOT unit prices are used, where possible, and the other costs are based on RSMeans Construction Costs, the labor rates will reflect union labor rates.
- 4. Mobilization was estimated at approximately 7% of total cost of other items.
- 5. Permit applications will require the preparation of a SWPPP and SPCC Plan. The cost for these documents was split between the two phases.
- 6. Road gravel removal was estimated on a time and material basis. Since the material will not remain on site, a hauling cost is added to the removal cost. Clean aggregate can typically be used as "daily cover" at landfills without incurring a disposal cost. The road gravel may also be used to fortify local driveways and roads, lowering hauling costs but incurring placing and compaction costs. The hauling costs to a landfill represents an upper limit to costs for disposal of the road gravel.
- 7. The selected disposal facility (Clinton Landfill Inc) is located in Clinton, IL, approximately 50 miles from the project site. Hauling costs to the landfill are estimated to be \$18.21 per ton.
- 8. Grade Road Corridor reflects the cost of mobilizing and operating light equipment to spread and smooth the topsoil stockpiled on site during construction to replace the aggregate removed from the road.
- 9. Erosion and sediment control along road reflects the cost of silt fence on the downhill side of the road adjacent to wetlands and drainage swales.
- 10. Topsoil is required to be stockpiled on site during construction, so no topsoil replacement is expected to replace the road aggregate. Subsoiling cost to decompact roadway areas is estimated as \$89.03 per acre, and tilling to an agriculture-ready condition is estimated as \$158.78 per acre.
- 11. Tracker array posts are lightweight "I" beam sections installed with a specialized piece of equipment and can be removed with a standard backhoe with an attachment for gripping the piles. We estimate crew productivity at 240 posts per day, resulting in a per post cost of approximately \$15.31.

- 12. The selected metal recycling facility (Mack's Twin City Recycling) is located in Urbana, IL, approximately 8 miles from the project site. Hauling costs to the recycling facility are approximately \$0.58 per ton mile, or \$4.68 per ton.
- 13. It is assumed that the racking structures weigh approximately 15 pounds per linear foot of array. Each solar panel has a width of 44.61 inches. The facility has 12,116 modules, 46,600 feet of array, weighing 431.39 tons. The arrays are made of steel pipes; a crew with hand tools can disassemble and cut the pieces to sizes for recycling at a rate of about 1800 pounds per person per hour, or about \$255 per ton.
- 14. The solar panels for this project measure approximately 3.72 feet by 7.40 feet and weigh 72 pounds. They can easily be disconnected, removed, and packed by a three-person crew at a rate we estimate at 36 panels per hour.
- 15. One equipment skid, consisting of string inverters, a transformer, and a panel on a metal frame, is assumed to be used for the project. The skids weigh approximately 13,000 pounds and can be disconnected by a crew of electricians. The inverters contain copper or aluminum windings.
- 16. Medium voltage (MV) equipment and SCADA equipment are mounted on the same equipment skids as the inverters and transformers, and they are enclosed in weatherproof cabinets. Their size requires light equipment to remove them.
- 17. The underground collector system cables are placed in trenches with a minimum of 5 feet of cover in agricultural areas in accordance with AIMA guidelines. Several cables/circuits are placed side by side in each trench. The conduits and cables can be removed by trenching.
- 18. The Facility is assumed to have one entrance from the existing roadway, therefore one rock construction entrance has been included. Although the exact access road design is in progress, one culvert has also been included.
- 19. Perimeter control pricing is based on silt fence installation around downgradient sides of the project perimeter.
- 20. Metal salvage prices (steel, aluminum, copper) are based on October, 2023 quotes from www.scrapmonster.com for the Midwest. Posted prices are three months old. These prices are based on delivery to the recycling facility with the material prepared to meet size, thickness, cleanliness, and other specifications.
- 21. A reduction of 25% has been taken from all pricing obtained from www.scrapmonster.com to reflect the processing by the contractor to meet the specifications.
- 22. The salvage value for steel uses pricing from the Midwest United States at \$305 per metric ton, or \$276.69 for U.S. ton.
- 23. Solar module salvage values are shown in current values, assuming near-new conditions for the first few years of operations. Solar modules are anticipated to degrade at approximately 0.50% per year, or 88% after 25 years. There is currently a robust market for used solar panels. We have assumed that as long as the modules are producing power, they will have economic value.
- 24. There is an active market for reselling and recycling electrical transformers and inverters with several national companies specializing in recycling. However, we have assumed that the electrical equipment will be obsolete at the time of decommissioning, so we have based the pricing on a percentage of the weight that reflects the copper windings that can be salvaged. Pricing was used for Copper Transformer Scrap for the Region United States, at \$0.36 per pound.
- 25. The collection lines are priced assuming copper conductor wire for the direct current circuits and aluminum wire for the alternating current circuits. The prices reflect a reduced yield of copper or aluminum resulting from the stripping of insulation and other materials from the

wire prior to recycling. The estimate uses the Midwest prices of #2 insulated copper wire with a 50% recovery rate (\$1.29/pound) and E.C. Aluminum Wire (\$0.98/pound).

- 26. Care to prevent damage and breakage of equipment, PV modules, inverters, capacitors, and SCADA must be exercised, but removal assumes unskilled common labor under supervision.
- 27. According to Zoning ordinance section 6.15Q(4)b.(g), a financial assurance of \$1,000 per acre is required. Total area enclosed within the fence is approximately 29.54 acres.

A DECOMMISSIONING PLAN FOR

# Bonacci 2 Solar Project Champaign County, Illinois

PREPARED FOR:





PREPARED BY:

Westwood

## Westwood

## Decommissioning Plan

Bonacci 2 Solar Project

Champaign County, Illinois

Prepared for:

Forefront Power, LLC 100 Montgomery Street, #725 San Francisco, CA 94104 Prepared by:

Westwood Professional Services 12701 Whitewater Drive, Suite 300 Minnetonka, MN 55343 (952) 937-5150



License Exp. 11/30/2025 Design Firm #184-005853

> Multi-Disciplined Surveying & Engineering westwoodps.com

Project Number: 00458981.04 Date: January 4, 2024

January 4, 2024

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## Attachments

Attachment A: Decommissioning Cost Estimate

January 4, 2024

## 1.0 Introduction / Project Description

This Decommissioning Plan ("Plan") has been prepared for the Bonacci 2 Solar Project (Facility) in accordance with the Champaign County (County) Zoning Ordinance, Section 6.1.5 and the Illinois Department of Agriculture (IDOA) Agricultural Impact Mitigation Agreement (AIMA). The purpose of the Plan is to describe the means and methods that can be used to remove all structures, foundations, underground cables, and equipment and to reclaim and restore the land altered during the construction and operation of the solar project to its predevelopment condition to the extent feasible.

The Facility is a 2.5-Megawatt (MW) alternating current (3.6-MW direct current) solar power generation project proposed by Forefront Power, LLC (Owner) in Champaign County, Illinois. Upon completion, the Facility will comprise a solar array consisting of ground-mounted photovoltaic panels and electrical support equipment, collection lines, access roads, and fencing. The Facility is located on approximately 15.96 acres and shares some Facility infrastructure with the adjacent Bonacci 1 Solar Facility.

The useful life of solar panels is generally considered to be 35 years. At that time, the project will either be decommissioned or repowered with newer technology. The Plan identifies components which may be removed and areas that may be restored once the Facility has not operated for six consecutive months, or when the Facility has surpassed the useful lifespan of the modules and facilities.

## 2.0 Proposed Future Land Use

Prior to the development of the Facility, the land use of the project area was primarily agricultural. After all equipment and infrastructure is removed during decommissioning, any holes or voids created by poles, concrete pads, and other equipment will be filled in with native soil to the surrounding grade, and the site will be restored to pre-construction conditions to the extent practicable. All access roads and other areas compacted by equipment will be decompacted to a depth necessary to ensure drainage of the soil and root penetration prior to fine grading and tilling to a farmable condition. Please refer to Section 3.2 for a detailed description of reclamation activities.

## 3.0 Decommissioning Activities

Decommissioning of the solar facility will include removing the solar panels, solar panel racking, steel foundation posts and beams, inverters, transformers, overhead and underground cables and lines, equipment pads and foundations, equipment cabinets, and ancillary equipment. The civil facilities, access roads, and security fence are included in the scope. Standard decommissioning practices will be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements.

During decommissioning, the landowners will be consulted to identify the extent and type of

work to be completed. Some Facility infrastructure, such as the access roads, may be left in place at the landowners' requests. In accordance with AIMA, underground utility lines, if deeper than five feet below ground surface elevation, will be left in place to minimize land disturbance and associated impacts to future land use.

Decommissioning will include the removal and transportation of all project components from the Facility site. All dismantling, removal, recycling, and disposal of materials generated during decommissioning will comply with rules, regulations, and prevailing Federal, State, and local laws at the time decommissioning is initiated and will use approved local or regional disposal or recycling sites as available. Recyclable materials will be recycled to the furthest extent practicable. Non-recyclable materials will be disposed of in accordance with State and Federal law.

#### 3.1 Decommissioning of Project Components

#### 3.1.1 Modules

Modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed, palletized, and shipped to an offsite facility for reuse or resale. Non-functioning modules will be shipped to the manufacturer or a third party for recycling or disposal.

#### 3.1.2 Racking

Racking and racking components will be disassembled and removed from the steel foundation posts, processed to appropriate size, and sent to a metal recycling facility.

#### 3.1.3 Overhead and Underground Cables and Lines

All underground cables and conduits will be removed if less than 5 feet below ground surface in accordance with AIMA requirements. It is assumed that the DC cables will be run on an aboveground CAB system, therefore removal of all DC cables has been included in the estimate. AIMA also requires that cables be installed 5 feet below ground surface in agricultural areas, therefore this cost estimate assumes that only underground AC cables running to surface equipment will require removal. Topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. The subgrade will be compacted per standards. Topsoil will be redistributed across the disturbed area. Overhead lines will be removed from the project and taken to a recycling facility.

#### 3.1.4 Inverters, Transformers, and Ancillary Equipment

All electrical equipment will be disconnected and disassembled. All parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

#### 3.1.5 Equipment Foundations and Ancillary Foundations

The ancillary foundations are pile foundations for the equipment pads. As with the solar array steel foundation posts, the foundation piles will be pulled out completely. All unexcavated areas compacted by equipment used in decommissioning will be decompacted in a manner to adequately restore the topsoil and sub-grade material to a density similar to the surrounding soils. All materials will be removed from the site and reconditioned and reused, sold as scrap,

recycled, or disposed of appropriately, at the owner's sole discretion, consistent with applicable regulations and industry standards.

#### 3.1.6 Fence

All fence parts and foundations will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. The surrounding areas will be restored to pre-solar farm conditions to the extent feasible.

#### 3.1.7 Access Roads

Facility access roads will be used for decommissioning purposes, after which removal of roads will be discussed with the Landowner and one of the following options will be pursued:

- 1. After final clean-up, roads may be left intact through mutual agreement of the landowner and the owner unless otherwise restricted by federal, state, or local regulations.
- 2. If a road is to be removed, aggregate will be removed and shipped from the site to be reused, sold, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. All internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. Any ditch crossing connecting access roads to public roads will be removed unless the landowner requests it remains. The subgrade will be decompacted using a chisel plow or other appropriate subsoiling equipment. All rocks larger than four inches will be removed. Topsoil that was stockpiled during the original construction will be distributed across the open area. The access roads and adjacent areas that are compacted by equipment will be decompacted.

#### 3.1.8 Restoration of Public Roads

As required by Section 6.1.5Q(2), this Plan includes provisions for repairs to public streets used during decommissioning and reclamation of the site. Public roads that will be used to haul materials and equipment during decommissioning efforts are generally multi-lane and paved. Prior to decommissioning, the Applicant, its successors in interest, and all parties to this Plan are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority, per Section 6.1.5Q(3). The agreement will establish the protocol for documenting the condition of roadways before and after decommissioning, as well as any obligations to repair the roads from damages sustained.

3.

#### 3.2 Reclamation

The Owner will restore and reclaim the site to the pre-solar farm condition consistent with the County Ordinance and AIMA. The Owner assumes that the site will be returned to farmland after decommissioning through implementation of appropriate measures to facilitate such uses. Soil testing will be performed to determine if any contaminants from equipment are present in the soil. In addition to the reclamation activities described above for each decommissioning activity, all unexcavated areas compacted by equipment and activity during the decommissioning will be decompacted in accordance with the AIMA Decompaction Guidance

#### Decommissioning Plan | Bonacci 2 Solar Project

Document to ensure proper density of topsoil consistent and compatible with the surrounding area and associated land use. All materials and debris associated with the Facility decommissioning will be removed and properly recycled or disposed of at off-site facilities.

#### 3.2.1 Backfill of Excavations

Per Section 6.1.5Q(3)k of the Ordinance, the excavation resulting from the removal of foundation concrete shall be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original Project construction. A lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade. Native soils excavated during construction of the Project may be stockpiled and seeded throughout the operating lifetime of the Project. These native soils may then be used for backfill.

If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist or Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the County Zoning Administrator.

An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.

#### 4.0 Best Management Practices (BMPs)

During decommissioning, erosion and sediment control BMPs will be implemented to minimize potential for erosion of site soils and sedimentation of surface waters and waters of the state. Because decommissioning will entail disturbance of more than one acre of soil, the Owner will prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain coverage under the state-specific National Pollutant Discharge Elimination System (NPDES) permit prior to initiating soil disturbing activities. Potential BMPs to be implemented during decommissioning activities are described below and will be subject to refinement in the SWPPP. The decommissioning team will review the permitting requirements at the time of decommissioning and obtain any other necessary permits, which may include a US Army Corps of Engineers Section 404 Permit to Discharge Dredged or Fill Material.

#### 4.1 Erosion Control

Erosion control measures will be refined based on the standard of practice current at the time the SWPPP is developed for decommissioning. All disturbed areas without permanent impermeable or gravel surfaces, or planned for use as crop land, will be vegetated for final stabilization. All slopes steeper than 4:1 should be protected with erosion control blankets. Restoration should include seed application prior to application of the blanket. All slopes 4:1 or flatter should be restored with seed and mulch, which will be disc anchored.

#### 4.2 Sediment Control

Sediment controls, such as silt fence, fiber logs, dewatering practices, construction entrances, and sedimentation traps and/or basins will be implemented during construction to prevent the transport of sediment off-site during decommissioning activities. Street sweeping/scraping will also be implemented to mitigate potential tracking of sediment onto public roadways.

#### 4.3 Controlling Stormwater Flowing onto and Through the Project

Given the low gradient of the slopes in the project area, controlling stormwater flow that enters the project area will likely require minimal effort during decommissioning activities. Only newly disturbed areas may require new, temporary stormwater control.

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#### 4.4 Permitting

All decommissioning and reclamation activities will comply with Federal and State permit requirements. Decommissioning activities that will disturb more than one acre of soil will require coverage under the state-specific NPDES permit for construction stormwater. The permits will be applied for and received prior to decommissioning construction activities commencing. A SWPPP will be developed prior to filing for construction stormwater permit coverage.

If necessary for decommissioning activities, wetlands and waters permits will be obtained from the US Army Corps of Engineers (USACE) or the Illinois Department of Natural Resources (IDNR). A Spill Prevention, Control, and Countermeasure (SPCC) Plan for decommissioning will likely also be required for decommissioning work.

Please see below for a table listing the potentially necessary permits for decommissioning the Facility.

	POTENTIALLY NECESSARY PERN	AITS FOR DECOMMISSIONING
ENTITY	Type of Permit	Description
US EPA/USACE	Wetland and water quality protection under Clean Water Act §§ 401 and 404	Section 401/404 permit or coverage under a nationwide permit if the decommissioning will impact wetlands or waters of the United States
ILLINOIS EPA	NPDES permit for construction activities, including Storm Water Pollution Prevention Plan (SWPPP)	Preparation and electronic submittal of SWPPP and Notice of Intent, as well as permit fee, to Illinois EPA for coverage under Illinois General Storm Water NPDES Permit for Construction Activities (ILR10).
ILL. DEPT. OF TRANSPORTAT ION (IDOT)	Size and weight limitations for vehicles on any Illinois roads.	Permits for over-size or over-weight vehicles.
IDOT	Permits required for driveway entrance.	Permits for work that may damage state roads or constructing/modifying entrances/exits to state roads.
IDOT	Permits required for road work	Permits for utility work in IDOT right-of-ways

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#### 4.5 Health and Safety Standards

Work will be conducted in strict accordance with the Owner's health and safety plan. The construction contractor hired to perform the decommissioning will also be required to prepare a site-specific health and safety plan. All site workers, including subcontractors, will be required to read, understand, and abide by the Plans. A site safety office will be designated by the construction contractor to ensure compliance. This official will have stop-work authority over all activities on the site should unsafe conditions or lapses in the safety plan be observed.

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### 5.0 Timeline

Decommissioning of the solar farm will be initiated if the project has not produced electricity for a period of up to 12 months. It is anticipated that the decommissioning activities for the project can be completed in an 8-week period. The estimated costs for decommissioning are tied to assumptions about the amount of equipment mobilized, the crew sizes, weather and climate conditions, and the productivity of the equipment and crews.

## 6.0 Decommissioning Costs

#### 6.1 Cost and Salvage Estimates

The decommissioning costs are calculated using current pricing. The purpose of updating the estimate is to recognize price trends for both decommissioning costs and the salvage and resale values of the components, as well as to reflect any current construction means and methods.

There are currently active markets for scrap steel, aluminum, and copper, used transformers and electrical equipment, and used solar panels. Scrap metal prices have been discounted from posted spot prices found on www.scrapmonster.com. Pricing for used panels has been discounted from prices received from We Recycle Solar for a similar project. The pricing of the used panels has incorporated the degradation from five years of use as warrantied by the manufacturer (not more than 0.5% per year).

Bonacci 2 Solar Project shall provide a detailed Decommissioning Cost Estimate, prepared by an Illinois Licensed Professional Engineer, prior to the issuance of building permits, which shall include the following:

- a) Three (3) individual, gross estimated costs to perform decommissioning for: aboveground restoration, belowground restoration, and environmental remediation as set forth in Section 2 above ("Gross Cost");
- b) An increase of the Gross Cost by 25% to eliminate any discrepancy in cost estimation techniques ("Contingency");
- c) The estimated resale and salvage values associated with the Project equipment ("Salvage Value");
- d) A reduction from the Salvage Value by 30%, such that only 70% of the Salvage Value can be used as a credit against the Gross Cost and Admin Factor. The Salvage Value multiplied by the 70% is the ("Salvage Credit").

Thus, the Decommissioning Cost Estimate formula is: Gross Cost + Contingency – Salvage Credit = the "Decommissioning Cost Estimate". The Gross Cost + Contingency for the Bonacci 2 Solar Project is approximately \$480,157 with a Salvage Credit of \$282,391. Therefore, the Decommissioning Cost Estimate is \$197,766.

#### 6.2 Financial Assurance Plan

Forefront Power, LLC shall provide an amount equal to the one hundred twenty-five percent (125%) the Decommissioning Cost Estimate (as determined by an Illinois-Licensed Professional

Engineer), ("Decommissioning Security"). All financial assurances required by the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall count towards the total financial assurance. Decommissioning Security shall be provided by the Owner prior to the Commercial Operation Date.

The Decommissioning Security will be in the form of an irrevocable letter of credit and an escrow account with the Champaign County Board as a beneficiary per Section 6.1.5 Q(4) of the Solar Ordinance. The County has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits, and the Applicant, its successors in interests, and all parties to decommissioning shall adjust the amount of financial assurance in escrow to ensure that it reflects current and accurate information. Unless the County states otherwise, the Champaign County State's Attorney's Office shall review and approve every Letter of Credit prior to Zoning Administrator Acceptance. Decommissioning estimates will be updated once every three (3) years for the first twelve (12) years of operation, and every other year thereafter. Estimates will be created by an Independent Illinois Licensed Professional Engineer.

Per section 6.1.5 Q.(4)a.(a) of the Solar Ordinance, the Applicant proposes to provide financial assurance using the following phased approach:

- 1. 12.5% of the decommissioning cost estimate, above, prior to authorization of the Zoning Use Permit for construction of the solar farm;
- 2. 62.5% of the most recent decommissioning cost estimate on or before the sixth anniversary of the Commercial Operation Date; and
- 3. 125% of the most recent decommissioning cost estimate on or before the 11<sup>th</sup> anniversary of the Commercial Operation Date.

#### 6.3 Use of Funds

Per Section 6.1.1A(9) of the Ordinance, the Zoning Administrator may draw on the funds for decommissioning of the solar facility when any of the following occur:

- a. No response is received from the landowner withing thirty (30) days from initial notification by the Zoning Administrator;
- b. The landowner does not enter, or breaches any term of a written agreement with the County to remove the Project;
- c. Any breach or performance failure of any provision of this Plan;
- d. The owner of record has filed a bankruptcy petition, or compromised the County's interest in the letter of credit in any way not specifically allowed by this Plan;
- e. A court of law has made a finding that the Project constitutes a public nuisance;
- f. The owner of record has failed to replace an expiring letter of credit within the deadlines set forth in Section 6.1.1A.6 of the Ordinance; or
- g. Any other conditions to which to the County and the landowner mutually agree;

Additionally, per Section 6.1.5Q(5) of the Ordinance, the Zoning Administrator may draw on the funds for decommissioning of the project when any of the following occur:

a. In the event that the Project or component thereof ceases to be functional for more than six months after it starts producing electricity of the Owner is not diligently repairing the Project or component;

- b. In the event that the Owner declares the Project or any Project component to be functionally obsolete for tax purposes.
- c. There is a delay in the construction of the Project of more than 6 months after construction on that Project begins.
- d. The Project or any components thereof that appears in a state of disrepair or imminent collapse and/or creates an imminent threat to the health or safety of the public or any person.
- e. The Project or any components thereof that is otherwise derelict for a period of 6 months.
- f. The Project is in violation of the terms of the SUP for a period exceeding ninety (90) days.
- g. The Applicant, its successors in interest, and all parties to this Plan has failed to maintain financial assurance in the form and amount required by the SUP or compromised the County's interest in this Plan.
- h. The County discovers any material misstatement of fact of misleading omission of fact made by the Applicant in the course of the SUP Zoning Case.
- i. The Applicant has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.5D. of the Ordinance or failed to submit it to the County within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification.

Per Section 6.1.5Q.(6), the Zoning Administrator may, but is not required to, deem the Project abandoned, or the standards set forth in Section 6.1.5Q.5. met, with respect to some, but not all, of the Project. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the Project only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining Project.

#### 6.4 Standard Conditions for Decommissioning

The following conditions shall apply, per Section 6.1.5Q(3) of the Ordinance:

- a. The applicant or successor shall notify the County by certified mail of the commencement of voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of proceeding.
- b. The applicant shall agree that the sale, assignment in fact or law, or such other transfer of applicant's financial interest in the Project shall in no way affect or change the applicant's obligation to continue to comply with the terms of this plan. Any successor in interest, assignee, and all parties to this Plan shall assume the terms, covenants, and obligations of this plan and agrees to assume all reclamation liability and responsibility for the Project.
- c. The County and its authorized representatives are authorized for right of entry onto the Project premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary.
- d. At such time as decommissioning takes place, the Applicant, its successors in interest, and all parties to this Plan are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority.
- e. The Applicant, its successors in interest, and all parties to this Plan shall provide evidence of any new, additional, or substitute financing or security agreement to the

Zoning Administrator throughout the operating lifetime of the project.

- f. The Applicant, its successors in interest, and all parties to this Plan shall be obliged to perform the work in this Plan before abandoning the Project or prior to ceasing production of electricity from the Project, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial assurance and shall not be limited by the amount of financial assurance. The obligation to perform the reclamation work shall constitute a covenant running with the land.
- g. This plan shall provide for payment of any associated costs that Champaign County may incur in the event that decommissioning is actually required. Associated costs include all administrative and ancillary costs associated with drawing upon the financial assurance and performing the reclamation work and shall include but not be limited to: attorney's fees; construction management and other professional fees; and, the costs of preparing requests for proposals and bidding documents required to comply with State law or Champaign County purchasing policies.
- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator (see Section 2.3 of this Plan.)
- i. Underground electrical cables of a depth of 5 feet or greater may be left in place (see Section 2.5 of this Plan).
- j. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows. Please see Section 2.8.2 of this Plan for this information as it pertains to site restoration:
  - a. The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original Project construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
  - b. The native soils excavated at the time of the original Project construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the Project. The methods for storing the excavated native soils during the operating lifetime of the Project shall be included in the decommissioning and site reclamation plan.
  - c. If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist of Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.
  - d. An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- k. Should this Plan be deemed invalid by a court of competent jurisdiction, the Project's

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SUP shall be deemed void.

- I. The Applicant's obligation to complete this Plan and to pay all associated costs shall be independent of the Applicant's obligation to provide financial assurance.
- m. The liability of the Applicant's failure to complete the decommissioning and site reclamation plan or any breach of this Plan's requirements shall not be capped by the amount of financial assurance.
- n. If the Applicant desires to remove equipment or property credited to the estimated salvage value without the concurrent replacement of the property with property of equal or greater salvage value, or if the Applicant installs equipment or property increasing the cost of decommissioning after the Project begins to produce electricity, at any point, the Applicant shall first obtain the consent of the Zoning Administrator. If the Applicant's lien holders remove equipment or property credited to the salvage value, the Applicant shall promptly notify the Zoning Administrator. In either of these events, the total financial assurance shall be adjusted to reflect any change in total salvage value and total decommissioning costs resulting from any such removal or installation.

# Attachment A

# Decommissioning Cost Estimate

#### Bonacci 2 Solar Project

	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization Mobilization was estimated to be approximately 7% of total cost of other items	1	Lump Sum	\$17,800.00	\$17,800
Permitting				
County Permits	1	Lump Sum	\$10,000.00	\$10,000
State Permits	1	Lump Sum	\$20,000.00	\$20,000
Subtotal Permitting				\$30,000
Decommissioning will require SWPPP and SPCC Plans. Cost is an estimate of the	e permit prep	aration cost.		
Civil Infrastructure				
Remove Gravel Surfacing from Road	855	Cubic Yards (BV)	\$2.69	\$2,301
Haul Gravel Removed from Road to Landfill (Clinton, IL)	1,069	Cubic Yards (LV)	\$6.61	\$7,064
Dispose of Gravel Removed from Road (Landfill uses as Daily Cover)	1,385	Tons	\$0.00	\$0
Remove Geotextile Fabric from Beneath Access Roads	4,809	Square Yards	\$1.40	\$6,732
Haul Geotech Fabric to Landfill (Clinton, IL)	1.3	Tons	\$18.21	\$24
Dispose of Geotech Fabric	1.3	Tons	\$81.00	\$107
Remove and Load Culvert from Beneath Access Roads	1	Each	\$420.00	\$420
Haul Culvert Removed from Access Roads to Landfill (Clinton, IL)	0.3	Tons	\$18.21	\$5
Dispose of Culvert	0.3	Tons	\$81.00	\$24
Grade Road Corridor (Re-spread Topsoil)	2,164	Linear Feet	\$1.58	\$3,428
Decompact Road Area	1.0	Acres	\$89.03	\$88
Remove Chainlink Fence (Substation, BESS, O&M, etc.)	3,336	Linear Feet	\$7.22	\$24,086
Haul Chainlink Fence to Metal Recycling (Urbana, IL)	18	Tons	\$5.46	\$97 \$44,377
Structural Infrastructure				
				1
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers)	2,192	Each	\$15.31	\$33,561
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL)	158	Tons	\$4.68	\$738
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String	158 504	Tons Each	\$4.68 \$92.77	\$738 \$46,758
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL)	158 504 189	Tons Each Tons	\$4.68 \$92.77 \$4.68	\$738 \$46,758 \$884
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL) Remove Drive Motor Posts	158 504 189 168	Tons Each Tons Each	\$4.68 \$92.77 \$4.68 \$15.31	\$738 \$46,758 \$884 \$2,572
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL) Remove Drive Motor Posts Haul Drive Motor Posts to Metal Recycling (Urbana, IL)	158 504 189	Tons Each Tons	\$4.68 \$92.77 \$4.68	\$738 \$46,758 \$884 \$2,572 \$57
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL) Remove Drive Motor Posts	158 504 189 168 12	Tons Each Tons Each Tons	\$4.68 \$92.77 \$4.68 \$15.31	\$738 \$46,758 \$884 \$2,572
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers) Haul Array Steel Post to Metal Recycling (Urbana, IL) Remove Tracker Racking per String Haul Tracker Racking to Metal Recycling (Urbana, IL) Remove Drive Motor Posts Haul Drive Motor Posts to Metal Recycling (Urbana, IL) Subtotal Structural Infrastructure Steel removal costs were calculated by using RSMeans information for demolit Hauling calculations are based on the locations of metals recyclers.	158 504 189 168 12	Tons Each Tons Each Tons	\$4.68 \$92.77 \$4.68 \$15.31	\$738 \$46,758 \$884 \$2,572 \$57
Remove Steel Foundation Posts (Arrays, Equipment, Met Towers)         Haul Array Steel Post to Metal Recycling (Urbana, IL)         Remove Tracker Racking per String         Haul Tracker Racking to Metal Recycling (Urbana, IL)         Remove Drive Motor Posts         Haul Drive Motor Posts to Metal Recycling (Urbana, IL)         Subtotal Structural Infrastructure         Steel removal costs were calculated by using RSMeans information for demolit.         Hauling calculations are based on the locations of metals recyclers.         Electrical Collection System	158 504 189 168 12	Tons Each Tons Each Tons	\$4.68 \$92.77 \$4.68 \$15.31 \$4.68	\$738 \$46,758 \$884 \$2,572 \$57 \$84,570
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*Electrical removal costs of PV Panels and Combiner Boxes were based industry standard installation rates. Equipment pads, MV Equipment, and SCADA Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and RSMeans information on crew production rates.* 

Gen-Tie System				
Remove Overhead Cables	1,209	Feet	\$7.90	\$9,551
Loadout Overhead Cables	2.4	Tons	\$37.00	\$89
Haul Overhead Cables	2.4	Tons	\$4.68	\$11
Remove and Load Timber Transmission Poles	9	Each	\$417.97	\$3,762
Haul Timber Poles to Landfill (Clinton, IL)	29	Tons	\$18.21	\$533
Haul Hardware, Bracing, and Attachments to Landfill (Clinton, IL)	5	Cubic Yards	\$24.83	\$122
Dispose of Transmission Pole Components	9	Each	\$81.00	\$729
Topsoil and Revegetation at Removed Poles	9	Each	\$3.05	\$27
Subtotal Transmission System				\$14,825
Site Restoration			4	4
Stabilized Construction Entrance	1	Each	\$2,000.00	\$2,000
Perimeter Controls (Erosion and Sediment Control)	1,668	Linear Feet	\$3.77	\$6,288
Permanent Seeding on Roadway Areas	1.0	Acres	\$5,307.87	\$5,274
Till to Farmable Condition on Array Areas	16	Acres	\$158.78	\$2,534
Subtotal Site Restoration				\$16,096
Project Management				
Project Manager	10	Weeks	\$3,749.00	\$37,490
Superintendent (half-time)	10	Weeks	\$1,762.50	\$17,625
Field Engineer (half-time)	10	Weeks	\$1,634.50	\$16,345
Clerk (half-time)	10	Weeks	\$375.00	\$3,750
Subtotal Project Management				\$75,210
Standard industry weekly rates from RSMeans.				
Subtotal Demolitions/Removals				\$376,594
Contingency (25%)				\$94,148
County Administration (2.5%)				\$9,415
Subtotal Demolition/Removals				\$480,157
Subtotal Demontolin temovals				\$100,10 <i>1</i>
Salvage				
Fencing (Chain Link)	18	Tons	\$207.52	\$3,686
Steel Posts	158	Tons	\$207.52	\$32,751
Module Racking	189	Tons	\$207.52	\$39,221
PV Modules	6,224	Each	\$42.08	\$261,892
Transformers and Inverters	1,873	Pounds	\$0.27	\$506
Transformers (Oil)	760	Gallons	\$0.70	\$532
DC Collection Lines (Copper)	63,000	Pounds	\$0.97	\$60,953
AC Collection Line Stub-Ups (Aluminum)	1,875	Pounds	\$0.74	\$1,378
Transmission Lines (Steel)	0.9	Tons	\$306.18	\$279
Transmission Lines (Aluminum)	3,018	Pounds	\$0.74	\$2,218
Subtotal Salvage				\$403,416
Salvage Credit				\$282,391
Salvage values are a combination of the following factors; current market	metal salvage prie	es, current second	ary market for sol	

Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market for solar panel module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.

Total Demolition Minus Salvage			\$197,766
Minimum Financial Assurance	16 Acres	\$1,000	\$15,960

Notes:

1. Prices used in analysis are estimated based on research of current average costs and salvage values.

2. Prices provided are estimates and may fluctuate over the life of the project.

3. Contractor means and methods may vary and price will be affected by these.

#### Cost Estimate Assumptions

To develop a cost estimate for the decommissioning of the Bonacci 2 Solar Project, Westwood engineers made the following assumptions and used the following pricing references. Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet. When publicly available bid prices or State Department of Transportation bid summaries were not available for particular work items, we developed time- and material-based estimates considering composition of work crews and equipment and material required. While materials may have a salvage value at the end of the project life, the construction activity costs and the hauling/freight costs are separated from the disposal costs or salvage value to make revisions to salvage values more transparent.

- 1. This cost estimate has been prepared based on the preliminary site layout provided by Forefront Energy, LLC and dated May 2023. Quantities that were not available when this Decommissioning Plan was prepared were estimated based on projects of similar size and design.
- 2. A facility of this size and complexity requires a full-time project manager with half-time support staff.
- 3. Common labor will be used for the majority of tasks, supplemented by electricians, steel workers, and equipment operators where labor rules may require. Since State DOT unit prices are used, where possible, and the other costs are based on RSMeans Construction Costs, the labor rates will reflect union labor rates.
- 4. Mobilization was estimated at approximately 7% of total cost of other items.
- 5. Permit applications will require the preparation of a SWPPP and SPCC Plan. The cost for these documents was split between the two phases.
- 6. Road gravel removal was estimated on a time and material basis. Since the material will not remain on site, a hauling cost is added to the removal cost. Clean aggregate can typically be used as "daily cover" at landfills without incurring a disposal cost. The road gravel may also be used to fortify local driveways and roads, lowering hauling costs but incurring placing and compaction costs. The hauling costs to a landfill represents an upper limit to costs for disposal of the road gravel.
- 7. The selected disposal facility (Clinton Landfill Inc) is located in Clinton, IL, approximately 50 miles from the project site. Hauling costs to the landfill are estimated to be \$18.21 per ton.
- 8. Grade Road Corridor reflects the cost of mobilizing and operating light equipment to spread and smooth the topsoil stockpiled on site during construction to replace the aggregate removed from the road.
- 9. Erosion and sediment control along road reflects the cost of silt fence on the downhill side of the road adjacent to wetlands and drainage swales.
- 10. Topsoil is required to be stockpiled on site during construction, so no topsoil replacement is expected to replace the road aggregate. Subsoiling cost to decompact roadway areas is estimated as \$89.03 per acre, and tilling to an agriculture-ready condition is estimated as \$158.78 per acre.
- 11. Tracker array posts are lightweight "I" beam sections installed with a specialized piece of equipment and can be removed with a standard backhoe with an attachment for gripping the piles. We estimate crew productivity at 240 posts per day, resulting in a per post cost of approximately \$15.31.
- 12. The selected metal recycling facility (Mack's Twin City Recycling) is located in Urbana, IL,

approximately 8 miles from the project site. Hauling costs to the recycling facility are approximately \$0.58 per ton mile, or \$4.68 per ton.

- 13. It is assumed that the racking structures weigh approximately 15 pounds per linear foot of array. Each solar panel has a width of 44.61 inches. Each solar panel has a width of 44.61 inches. The facility has 6,552 modules, 25,200 feet of array, weighing 233.28 tons. The arrays are made of steel pipes; a crew with hand tools can disassemble and cut the pieces to sizes for recycling at a rate of about 1800 pounds per person per hour, or about \$255 per ton.
- 14. The solar panels for this project measure approximately 3.72 feet by 7.40 feet and weigh 72 pounds. They can easily be disconnected, removed, and packed by a three-person crew at a rate we estimate at 36 panels per hour.
- 15. One equipment skid, consisting of string inverters, a transformer, and a panel on a metal frame, is assumed to be used for the project. The skids weigh approximately 13,000 pounds and can be disconnected by a crew of electricians. The inverters contain copper or aluminum windings.
- 16. Medium voltage (MV) equipment and SCADA equipment are mounted on the same equipment skids as the inverters and transformers, and they are enclosed in weatherproof cabinets. Their size requires light equipment to remove them.
- 17. The underground collector system cables are placed in trenches with a minimum of 5 feet of cover in agricultural areas in accordance with AIMA guidelines. Several cables/circuits are placed side by side in each trench. The conduits and cables can be removed by trenching.
- 18. The Facility is assumed to have one entrance from the existing roadway, therefore one rock construction entrance has been included. Although the exact access road design is in progress, one culvert has also been included.
- 19. Perimeter control pricing is based on silt fence installation around downgradient sides of the project perimeter.
- 20. Metal salvage prices (steel, aluminum, copper) are based on October, 2023 quotes from www.scrapmonster.com for the Midwest. Posted prices are three months old. These prices are based on delivery to the recycling facility with the material prepared to meet size, thickness, cleanliness, and other specifications.
- 21. A reduction of 25% has been taken from all pricing obtained from www.scrapmonster.com to reflect the processing by the contractor to meet the specifications.
- 22. The salvage value for steel uses pricing from the Midwest United States at \$305 per metric ton, or \$276.69 for U.S. ton.
- 23. Solar module salvage values are shown in current values, assuming near-new conditions for the first few years of operations. Solar modules are anticipated to degrade at approximately 0.50% per year, or 88% after 25 years. There is currently a robust market for used solar panels. We have assumed that as long as the modules are producing power, they will have economic value.
- 24. There is an active market for reselling and recycling electrical transformers and inverters with several national companies specializing in recycling. However, we have assumed that the electrical equipment will be obsolete at the time of decommissioning, so we have based the pricing on a percentage of the weight that reflects the copper windings that can be salvaged. Pricing was used for Copper Transformer Scrap for the Region United States, at \$0.36 per pound.
- 25. The collection lines are priced assuming copper conductor wire for the direct current circuits and aluminum wire for the alternating current circuits. The prices reflect a reduced yield of copper or aluminum resulting from the stripping of insulation and other materials from the

wire prior to recycling. The estimate uses the Midwest prices of #2 insulated copper wire with a 50% recovery rate (\$1.29/pound) and E.C. Aluminum Wire (\$0.98/pound).

- 26. Care to prevent damage and breakage of equipment, PV modules, inverters, capacitors, and SCADA must be exercised, but removal assumes unskilled common labor under supervision.
- 27. According to Zoning ordinance section 6.15Q(4)b.(g), a financial assurance of \$1,000 per acre is required. Total area enclosed within the fence is approximately 15.96 acres.

### Westwood

# Vegetation Establishment and Management Plan

Bonacci Site Solar I of II Champaign County, Illinois

Prepared For: Forefront Power, LLC 100 Montgomery Street Suite 725 San Francisco, CA 94104 Prepared By: Westwood Professional Services, Inc. 12701 Whitewater Drive Suite 300 Minnetonka, MN 55343

Project Number: R0045891.03 Date: January 10<sup>th</sup>, 2024



# Westwood

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Exhibit 2:	Seed Mixes
Exhibit 3:	Illinois Noxious Weed Law Species List
Exhibit 4:	Illinois Exotic Weed Act Species List

#### **1.0 Project Description**

The Project is located within an unincorporated part of Champaign County, Illinois. The Project is located along Co. Road 1400 N, just southwest of the town of Urbana.

The proposed projects will involve the construction and operation of a photovoltaic solar power generation facility that is expected to produce as much as 4.5 MW AC of renewable electric power. Upon completion, the Facility will comprise a solar array consisting of ground-mounted photovoltaic panels and electrical support equipment, collection lines, access roads, and fencing. The Facility is located on approximately 29.54 acres and shares some Facility infrastructure with the adjacent Bonacci II Solar Facility.

The land use in the vicinity of the proposed site includes unimproved agriculture land, and very low density rural residential.

The overall goal of this Plan is to establish a sustainable, diverse, perennial pollinator friendly ground cover throughout the Project Area that meets the standards for the Illinois Solar Site Pollinator Habitat criteria. The purpose of this Plan is to lay out a clear strategy for site preparation, seeding, planting methods, and the process and timeline for successful vegetation establishment. The Plan also outlines the long-term maintenance and monitoring necessary to contribute to the long-term success for the Project.

#### 2.0 Vegetation Establishment and Management During Construction

During Project development and before beginning construction, site vegetation will be evaluated to determine which areas will be mowed, left undisturbed, or will require pre-seeding. Areas with limited vegetation due to agricultural practices, or where native vegetation is disturbed due to construction activities will be seeded and stabilized in a timely manner. The portions of the Project Area currently well vegetated and not utilized for Project facilities, or not impacted during construction, will remain vegetated. These areas include most wetlands, forested lands, and other non-agricultural areas along the periphery of the Project Area. The portions of the Project Area located outside of the perimeter fence that are historically actively farmed and lacking vegetation will be pre-seeded.

The following sections describe vegetation activities conducted during construction.

#### 2.1 Site Clearing, Grading, and Vegetation Removal

Preparation for construction of the Project will require some amount of vegetation removal and grading. Minimal, if any clearing is anticipated as the Project Area was previously land in active agricultural use. Grading will be needed to prepare the site for installation of the single-axis tracker system, inverters, roads, and other infrastructure. The tracker foundation piles are installed within certain slope tolerances required by the tracker manufacturer in order to create level structures for the installation of solar panels. The grading design of the site seeks to minimize grading while providing a surface suitable to meet these tracker slope tolerances and to allow for positive drainage. The grading design attempts to minimize the extent of, and balance cut and fill volumes as much as possible across the site. Given the size of the Project Area, minimal grading is anticipated. Excess material may be spread in a controlled manner evenly across the site.

Erosion and sediment control devices will be installed in advance of grading activities and will be maintained throughout grading and stabilization according to the erosion control, storm water management permit, and any associated BMPs developed for the Project.

As discussed above, most of the current topography is suitable for the placement of PV panels with limited site preparation or improvements required. Where grading is necessary, it will occur after installation of principal erosion and sediment control devices. The contractor will avoid mixing or contaminating topsoil with subsoils. Topsoil will be stripped, stockpiled, and properly maintained by BMPs separately from subsoils and reapplied during final grading for vegetation establishment. Stockpiled soils will be temporarily stabilized with a cover crop such as oats or winter wheat. Drainage patterns from the Project Area will remain similar to pre-developed conditions, with a majority of the site draining via sheet flow to existing drainage ditches or swales bisecting large contiguous portions of the Project Area.

#### 2.2 Invasive Species Management

Invasive and weed species management will be conducted as needed to reduce the spread of invasive species from existing populations into adjacent agricultural lands, improve establishment and success of the permanent seed mixes, and reduce vegetation impacts to the PV panels and solar facility infrastructure.

Invasive species management will be conducted as needed to:

- Minimize the spread of invasive species from existing populations if present.
- Prepare the seeding areas for permanent vegetation to reduce competition and improve establishment and success of the permanent seed mixes.
- Reduce vegetation impacts to the PV panels and solar facility infrastructure. Flowering non-native species that are not listed on the Illinois Noxious Weed Law Species List and do not have heights that would interfere with the Project operations will not be actively managed.

Illinois Administrative Code lists 9 weed species in the Illinois Noxious Weed Law that must be controlled on property owned or managed. These weeds have detrimental effects, and they must be controlled and removed using legal means. See Exhibit 3 for the Illinois Noxious Weed Species List.

Also set into Illinois Administrative Code, The Illinois Exotic Weed Act is managed by the Illinois Department of Natural Resources (IDNR). These non-native plants listed in Exhibit 4, spread, naturalize, and damage natural vegetation habitats. **This law doesn't** require the owner or manager of the property to control these plants like the Illinois Noxious Weed Law does. Rather, the intent is to prevent the spread. Please do what you can to prevent these species from spreading, see *Monitoring and Maintenance* section for

more information. Controlling these species is the ultimate form of preventing the spread of these invasive species.

#### 2.3 Herbicides

Depending on the site conditions, a non-selective herbicide such as a Glyphosate may be used to prepare the seedbed. Broadleaf or grass-selective herbicide may be used depending on need. Application method will be reviewed to determine whether low volume/spot application or broadcast applications are appropriate. Some additional considerations include target species, vegetation density or composition, and site evaluation including sensitive surrounding areas, projected precipitation, or winds.

Herbicide treatments will be performed by individuals with a current Commercial Pesticide Applicator certification and license issued through the State of Illinois in accordance with all applicable laws, regulations, and herbicide label instructions.

Vegetation management equipment and implements will be cleaned of potential weed and invasive species reproductive parts prior to entering the Project Area. Similarly, equipment will be cleaned after all work events in the Project Area. Cleaning can occur off-site at a designed cleaning station or facility, or a cleaning station constructed in the Project Area. Cleaned equipment should always be inspected to ensure removal of all vegetative matter.

#### 2.4 Temporary (Annual) Seeding

Temporary seeding shall be applied for all areas of disturbance intended to remain pervious. Additional areas where temporary seeding should be applied include topsoil stockpiles and non-structural soil material. Multiple applications will be necessary during the construction process to meet the requirements of temporary stabilization.

Winter wheat and annual ryegrass should be selected as the temporary seeding cover crop if being installed during the fall through the winter or frost seeding. Oats and annual ryegrass should be selected as the temporary seeding cover crop if being installed in spring or early summer.

#### 3.0 Vegetation Installation

The main goal of site preparation is to provide or create ideal growing conditions for seed to be installed. It will be essential to control invasive species after planting, along with erosion and sediment control, and preserving areas not meant to be disturbed.

The following section describes site preparation tasks that may be conducted prior to the installation of the permanent seed mixes. All site preparation activities shall maintain compliance with the erosion control and Project storm water management permit.

The permanent seed mixes have been customized to be compatible with PV panels and adapted to the site environmental conditions. The proposed seeding plan for areas within the Project Area is provided in Exhibit 1.

#### 3.1 Seed Bed Preparation

Prior to application of the seed mixes to the Project Area, the seed bed will be prepared to ensure successful propagation and survival of the desired plants in the Project Area. To prepare the site for effective seeding, any invasive species (Section 2.2) located within the area to be seeded should be treated with an approved herbicide (Section 2.3).

An adequate seed bed will be prepared using a disc, field cultivator, or chisel plow (or equivalent). Seedbed preparation will be based on seeding methods and species planted. Tillage and equipment operations related to seeding and mulching will be performed in a manner to minimize soil erosion.

Compacted areas, such as the laydown yards and heavily travelled corridors, will be decompacted. Decompaction should be performed with chisel plows, rippers, or tillers depending on the depth and severity of the compaction. When necessary, decompaction should be followed by disking to prepare a smooth, moist, and evenly textured soil surface. Spot cutting and mowing will be appropriately timed to assist with control of invasive and weedy species (e.g., mow biennial species during flowering but prior to seed production) and to remove vegetation to assist with site seedbed preparation. Methods will be selected based on aerial extent of vegetation and site accessibility.

#### 3.2 Installation Methods

Seed will be applied uniformly at specified rates by drilling, broadcasting, or hydroseeding. Seed will be sown to the appropriate depths based on method, species, soil type and available moisture. Seeding activities will be suspended if conditions are such that equipment will cause significant rutting of the surface in the designated seeding areas.

<u>Drill Seeding</u> – seeding equipment will be capable of uniformly distributing the seed and sowing it at the required depth. Drills will be equipped with a feeding mechanism that will provide a uniform flow of seed at the desired application rate. Double-disc furrow openers equipped with depth bands and packer wheels to firm the soil over the seed will be used where appropriate. Other types of drill seeder maybe used based on availability and soil conditions.

<u>Broadcast Seeding</u> – broadcast seeding rate will be double the drill-seeding rate. Seed will be uniformly distributed by mechanical or hand-operated seeder. Following seeding, a cultipacker, harrow, or hand rake will be used to cover the seeds and firm the seedbed as is appropriate for the area.

<u>Hydroseeding</u> – hydroseeding rate will be double the drill seeding rate, or the same as broadcast seeding rate. Seed will be applied alone or in a seed, fertilizer and/or hydromulch slurry. If seeding is applied alone, the amount of hydromulch material will be adjusted to the seed slurry to show where seeding has taken place, providing a means to identify uniform cover. Hydroseeders must provide continuous agitation and be capable of supplying a continuous, non-fluctuating flow of slurry. Hydroseed slurry will not be held in the tank more than 1 hour before use.

#### 3.3 Permanent (Perennial) Seeding

Upon completion of construction, all disturbed areas will be seeded with a perennial seed mix. Westwood coordinated with Minnesota Native Landscapes, Inc., a highly recognized ecological restoration company and purveyor of native plant species, to develop a diverse and appropriate seed mix for the Project based upon the Illinois Solar Site Habitat Planning Scorecard. The seed mixes are provided in the Tables 1–2. These seed mixes are subject to availability at the time of purchase and substitution may occur if necessary. New species substituted into the mix will meet the same general criteria as those removed – native to the region, low-growing, local-origin, pollinator friendly and if applicable, the same blooming category.

The proposed mixes are composed of various native grasses and forb or wildflower species. The species selected provide food for all life-stages of pollinators. Once established and mowing is occurring on an annual or biennial basis, the proposed mixes will also provide nesting and foraging habitat for birds. Additionally, these native plant species will grow deep and prolific root systems leading to restructured agricultural soils for enhanced infiltration and increased organic matter. The species have been selected on their growth size, composition, and ability to thrive under a wide array of site conditions. Final seed mixes and seeding rates may be modified based on factors such as site conditions and seed availability at the time of final design and construction and may result in the addition or removal of species, or adjustment of species component percentages.

#### 3.3.1 Solar Array Mix (Table 1)

This native mesic prairie seed mix (Solar Array Mix) is composed primarily of low growing grass and sedge species to provide permanent low maintenance and low stature vegetation that can thrive a variety of soil and environmental conditions. This mix is designed to be cost-effective as it covers most of the Project Area where solar arrays will be installed and provides deep-rooted species to aid in soil stabilization. This mix is specially designed to remain at a lower height (12 to 30 inches) so as to not interfere with the operation of the solar equipment and reduces the maintenance needed underneath the array.

	abic 1. IL Solar Array Seculivity		
Scientific Name	Common Name	% of Mix	PLS
Bouteloua curtipendula	Side-oats Grama	50.00	5.00
Bouteloua gracilis	Blue Grama	7.00	0.70
Bromus kalmii	Prairie Brome	20.00	2.00
Koeleria macrentha	Junegrass	2.00	0.20
Festuca subverticillata	Nodding Fescue	2.00	0.20
Sporobolus heterolepis	Prairie Dropseed	10.00	1.00
	Total Grasses	91.00	9.10
Carex bicknellii	Bicknell's Sedge	2.00	0.20
Carex sprengelii	Long-Beaked Sedge	2.00	0.20
	Total Sedges	4.00	0.40
Chamaecrista fasciculata	Partridge Pea	1.00	0.10

#### Table 1: IL Solar Array Seed Mix

Scientific Name	Common Name	% of Mix	PLS
Dalea purpurea	Purple Prairie Clover	2.00	0.20
Rudbeckia hirta	Black-eyed Susan	2.00	0.20
	Total Forbes	5.00	.50
	MIX TOTAL	100	10.00

The Solar Array Mix will be drill or broadcast seeded based on site conditions and timing of seeding to uniformly distribute the mix under and around the constructed solar array. If a seed drill is used, seed will be sown at a depth of no more than 0.25 inch. The Solar Array Mix will be sown with oats or winter wheat as a cover crop to limit erosion, suppress weed growth, and provide a micro-climate for the native plants as they establish themselves.

The species in this mix will act as a permanent BMP and allow for runoff, sediment, and other pollutants to be infiltrated or captured by the vegetation to further aid in **the site's soil stability.** 

#### 3.3.2 Pollinator Mix (Table 2)

This native mesic prairie seed mix (Pollinator Mix) contains a wide variety of grasses, sedges, and forbs. The mix is intended to promote pollinator species diversity, with flowering species over each of the three blooming periods (spring, summer, and fall), along with native bunch grasses and sedges that provide habitat to pollinators and other wildlife. This seed mix is composed of species of low to medium stature (12 to 48 inches) that can thrive in a wide variety of soil and environmental conditions. The Pollinator Mix is intended for perimeter and buffer area outside a 10-foot buffer from the PV panel arrays select access roads, and corridors between main arrays.

Scientific Name	Common Name	% of Mix	PLS
Bouteloua curtipendula	Side-oats Grama	20.00	2.00
Bromus kalmii	Prairie Brome	8.00	0.80
Elymus canadensis	Canada wild rye	7.00	0.70
Elymus virginicus	Virginia Wild Rye	10.00	1.00
Schizachyrium scoparium	Little Bluestem	20.00	2.00
Sporobolus compositus	Rough Dropseed	2.00	0.20
Sporobolus heterolepis	Prairie Dropseed	1.00	0.10
	Total Grasses	68.00	6.80
Carex bicknellii	Bicknell's Sedge	1.00	0.10
Carex molesta	Field Oval Sedge	1.00	0.10
	Total Sedges	2.00	0.20
Achillea millefolium	Yarrow	0.50	0.05
Allium cernuum	Nodding Onion	0.25	0.30
Anemone canadensis	Canada Anemone	0.20	0.20
Asclepias syriaca	Common Milkweed	1.50	0.15
Asclepias tuberosa	Butterfly Milkweed	0.75	0.08
Chamaecrista fasciculata	Partridge Pea	5.00	0.50
Dalea candida	White Prairie Clover	2.50	0.25
Dalea purpurea	Purple Prairie Clover	5.00	0.50

Table 2: Pollinator Mix

January 10<sup>th</sup>, 2024

Scientific Name	Common Name	% of Mix	PLS
Desmodium canadense	Canada Tick Trefoil	3.00	0.30
Echinacea pallida	Pale Purple Coneflower	1.00	0.10
Heliopsis helianthoides	Common Ox-Eye	2.00	0.20
Monarda fistulosa	Wild Bergamot	0.50	0.05
Penstemon digitalis	Foxglove Beardtongue	0.25	0.03
Ratibida pinnata	Yellow Coneflower	0.30	0.03
Rudbeckia hirta	Black-eyed Susan	3.50	0.35
Solidago rigida	Stiff Goldenrod	0.25	0.03
Symphyotrichum laeve	Smooth Blue Aster	1.00	0.10
Symphyotrichum oolentangiense	Sky-blue Aster	1.00	0.10
Tradescantia ohiensis	Ohio Spiderwort	0.50	0.05
Zizia aurea	Golden Alexanders	1.00	0.10
	Total Forbs	30.00	3.00
	MIX TOTAL	100.00	10.00

The Pollinator Mix will be drill or broadcast seeded based upon site conditions and timing of seeding to uniformly distribute the mix. If a seed drill is used, seed will be sown at a depth of no more than 0.25 inch. The Pollinator Mix will also be sown with oats or winter wheat as a cover crop to limit erosion, suppress weed growth, and provide a micro-climate for the native plants as they establish themselves.

#### 3.4 Timing

Native seeding will be performed either in the spring or fall. Spring seeding season would occur mid-March through June and the fall seeding season would occur from mid-October until first frost. A cover crop will be installed at the same time as perennial seeding.

Temporary cover crop (annual) seed and permanent (perennial) seed should be installed simultaneously but separately at approximately 90- degree angles to minimize competition and promote better establishment.

Mulch material or other erosion control materials will be applied per manufacture recommendations. The grading Permit may require application of a straw mulch or other approved compost cover over newly seeded areas to meet stabilization requirements.

#### 3.5 Standards for Seeds and Seed Mixes

Seed and seed mixes will be native to the Illinois and regionally sourced and purchased on a Pure Live Seed (PLS) basis where available. Associated seed tags will identify purity, **germination, date tested, total weight and PLS weight, weed seed content and supplier's** information. Seeding rates will be based on the PLS rate and number of pure live seeds per square foot. Seed tags will be retained for record keeping such as dates and locations of application.

The contractor will keep record of which seed is used along with application rate and dates of application. The contractor will document seed tags for reference.

#### 4.0 Monitoring and Maintenance

Follow-up monitoring and maintenance are critical tasks for achieving successful establishment of seeded vegetation. Native plant species typically take longer to mature than non-native species. For full establishment of native vegetation, the process usually takes two to three years for plants to reach maturity.

In the first year, most native species are developing their deep fibrous root system. The second year brings more developed foliage and blooms. During these first two years, it is essential to offer routine maintenance to prevent more rapidly growing non-native and invasive weed species from establishing. The following three years should show a reduction in need for maintenance as the native vegetation establishes.

The Project will be monitored through the construction process to verify temporary and permanent seeding is being completed. The Project will be monitored annually during the five-year establishment period. Monitoring will influence maintenance and vegetation management needs across the Project Area. Routine post-construction monitoring will include surveys for invasive species.

Annual reporting will be completed to summarize vegetation establishment progress towards achieving project objectives and to verify conditions of approval are met.

#### 4.1 Mowing

Mowing is an essential tool in the establishment of native vegetation proposed for revegetating the solar site. Mowing keeps undesirable vegetation and weed species at a reduced height and prevents them from blooming and setting seed. Mowing also allows sunlight to reach the ground to facilitate growth of desirable species and prevents shading.

Mowing will take place approximately 4-6 weeks after permanent seeding of all seed mixes and then repeated as needed to keep undesired weed species from shading or going to seed. A minimum of two mowing events per year should occur during the first two years. When weeds reach a height of around 12 to 18 inches, they will be mowed. The mower deck should be set at 5 to 8 inches and raised as perennial plantings mature. Weed whipping will be needed in areas near equipment, to prevent damage.

In years 3-5, the perennial vegetation has established and there is less risk of weed growth. For all seed mixes, mowing will continue to occur at least one per year, or spot mowing to target only specific areas of weed growth. Once vegetation is fully established past year five, mowing can occur every other year or as needed based on monitoring. An alternative to mowing is grazing as numerous projects have started using sheep to replicate the same process. This is alternative that is being actively pursued for this project.

#### 4.2 Spot-Herbicide Treatments

Herbicides are another essential tool to ensure planting success. Spot spraying can be utilized to target problematic perennial weeds or woody plants that need to be managed. To the extent possible, herbicide use will be limited to spot spraying to minimize potential impacts on preferred vegetation trying to establish. An appropriate herbicide will be selected depending on site specific conditions, including target species, vegetation density or composition, sensitive surrounding areas, and forecasted precipitation and wind. Herbicides will only be used by trained and licensed professional in accordance with product labels.

In the post-construction condition, invasive species removal will be completed prior to establishing new vegetation.

Herbicide treatments are recommended for management of perennial invasive species, as mowing alone is not typically sufficient for adequate control.

Herbicide treatments will be performed by individuals with a current Commercial Pesticide Applicator certification and license issued through the State of Illinois, and in accordance with all applicable laws, regulations, and herbicide label instructions. Herbicide application in or immediately adjacent to wetlands with standing water will be avoided when possible.

#### 4.3 Site Inspections

During each maintenance visit, the site will be inspected for signs of or early indicators of erosion. Any areas of concern will be immediately presented to the project owner/developer to evaluate and implement corrective measures. Should the contractor observe a non-typical condition or change in site conditions the project owner / developer will be immediately notified. During maintenance activities, the access road will be inspected and maintained to ensure that vegetative creep does not occur. This will include the mowing of at least a 3-foot strip paralleling each side of the road. Additionally, any observed vegetative creep within the road will be removed. Also, the perimeter fence line will be inspected for items of trash that may have accumulated since the previous site visit. These items will be collected and disposed of offsite.

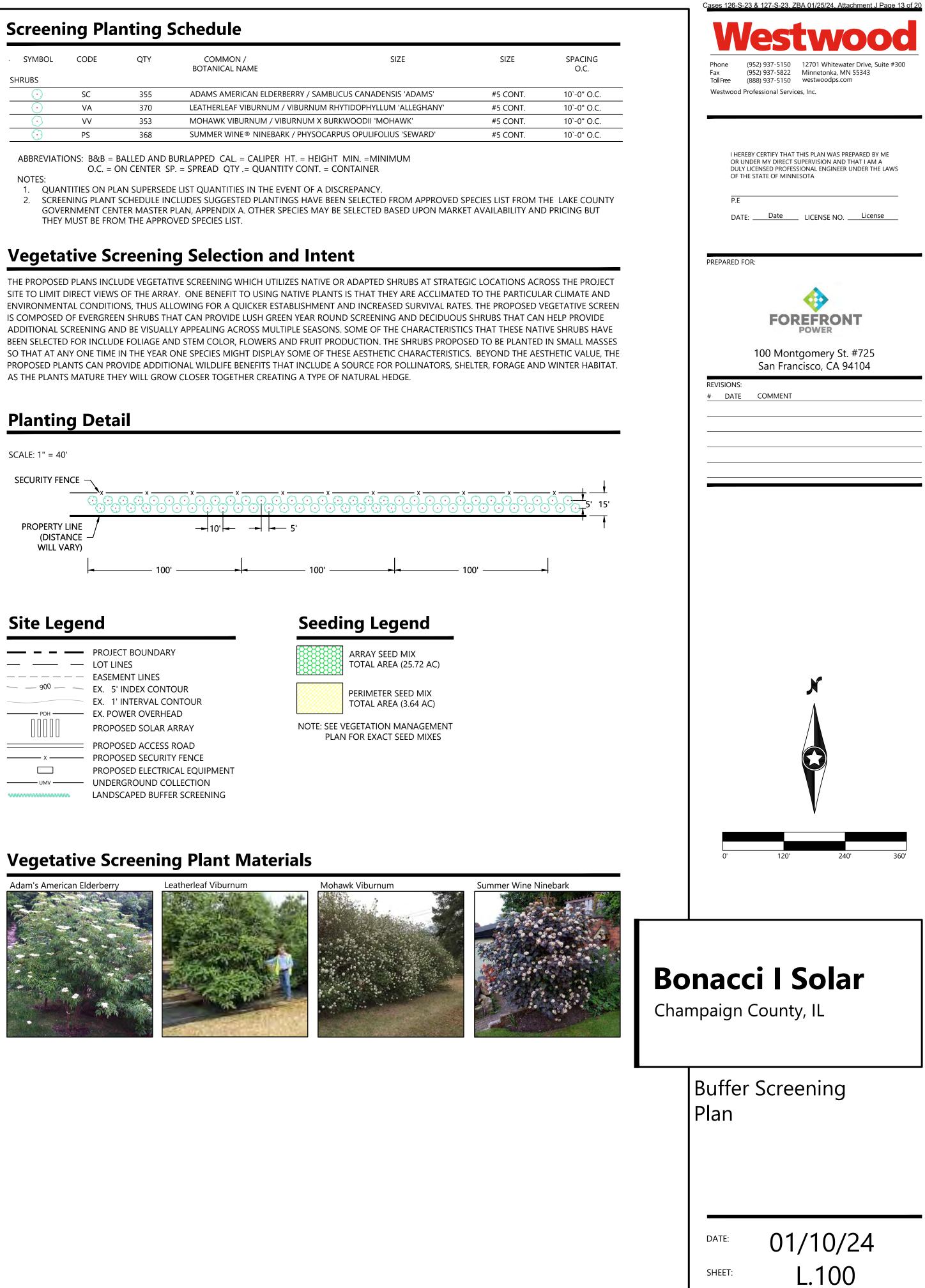
# **Exhibit 1: Seeding Plan**



	SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	SIZE
S	HRUBS				
	$\bigcirc$	SC	355	ADAMS AMERICAN ELDERBERRY / SAM	BUCUS CANADENSIS
	$\overline{\mathbf{\cdot}}$	VA	370	LEATHERLEAF VIBURNUM / VIBURNUM	RHYTIDOPHYLLUM 'A
	$\odot$	VV	353	MOHAWK VIBURNUM / VIBURNUM X B	URKWOODII 'MOHAW
_	$\odot$	PS	368	SUMMER WINE® NINEBARK / PHYSOC	ARPUS OPULIFOLIUS 'S
_					

O.C. = ON CENTER SP. = SPREAD QTY .= QUANTITY CONT. = CONTAINER

QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

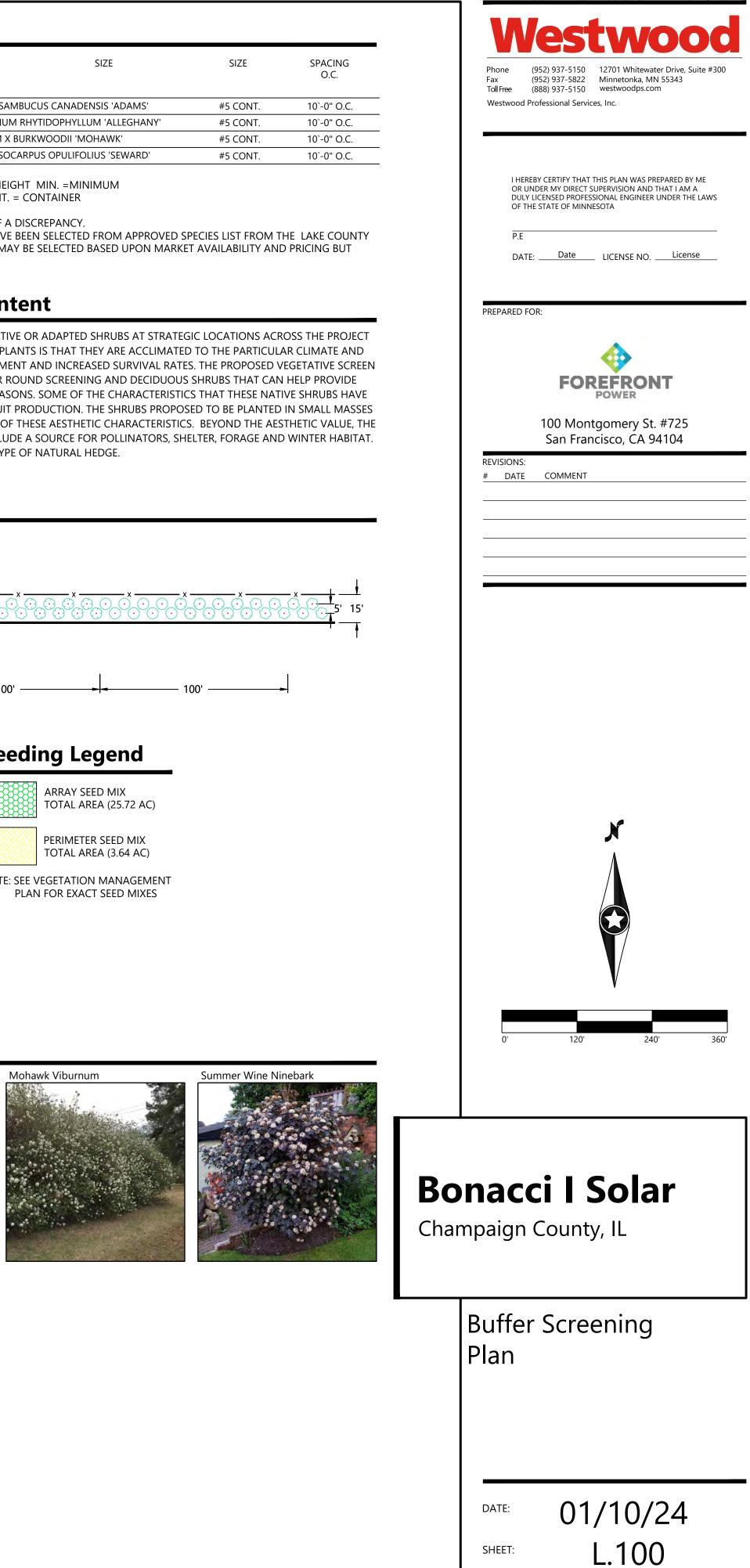


900	PROJECT BOUNDARY LOT LINES EASEMENT LINES EX. 5' INDEX CONTOU EX. 1' INTERVAL CONT EX. POWER OVERHEAD
	PROPOSED SOLAR ARR
	PROPOSED ACCESS RC
x	PROPOSED SECURITY F
	PROPOSED ELECTRICAL
UMV	UNDERGROUND COLLI
	LANDSCAPED BUFFER S

ARRAY SEED TOTAL AREA
PERIMETER SE TOTAL AREA







#### **Exhibit 2: Seed Mixes**



Cases 126-S-23 & 127-S-3, ZBA 01/25/24, A Grass PLS lbs/ac: 9.10 Sedge PLS lbs/ac:

Forb PLS lbs/ac:

Species Count:

Seeds/Sq. Ft:

Height Range:

0.40

0.50

11

65

12-30"

IL Solar Array Mix

#### Location:

Medium (mesic) loamy and clay soils. All species native to Illinois.

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season
Grasses:	Bouteloua curtipendula	Side-Oats Grama	50.00	5.00	
	Bouteloua gracilis	Blue Grama	7.00	0.70	
	Bromus kalmii	Prairie Brome	20.00	2.00	
	Koeleria macrantha	Junegrass	2.00	0.20	
	Festuca subverticillata	Nodding Fescue	2.00	0.20	
	Sporobolus heterolepis	Prairie Dropseed	10.00	1.00	
Sedges:	Carex bicknellii	Bicknell's Sedge	2.00	0.20	
	Carex sprengelii	Long-Beaked Sedge	2.00	0.20	
Forbs:	Chamaecrista fasciculata	Partridge Pea	1.00	0.10	Fall
	Dalea purpurea	Purple Prairie Clover	2.00	0.20	Summer
	Rudbeckia hirta	Black Eyed Susan	2.00	0.20	Summer

Species subject to change based on availability.



Cases 126-S-23 & 127-S 23, ZDA 01/25/24, Attachment J Page 10 of 20 Grass PLS lbs/ac. 6.80

#### IL Solar Perimeter Pollinator Mix

# Grass PLS lbs/ac: 6.80 Sedge PLS lbs/ac: 0.20 Forb PLS lbs/ac: 3.00 Species Count: 29 Seeds/Sq. Ft: 65 Height Range: 24-48"

#### Location:

Medium (mesic) loamy and clay soils. All species native to Illinois.

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season
Grasses:	Bouteloua curtipendula	Side-Oats Grama	20.00	2.00	1.
	Bromus kalmii	Prairie Brome	8.00	0.80	
	Elymus canadensis	Canada Wild Rye	7.00	0.70	
	Elymus virginicus	Virginia Wild Rye	10.00	1.00	
	Schizachyrium scoparium	Little Bluestem	20.00	2.00	
Sporobolus compositus Sporobolus heterolepis	Sporobolus compositus	Rough Dropseed	2.00	0.20	
	Prairie Dropseed	1.00	0.10		
Sedges:	Carex bicknellii	Copper Shouldered Oval Sedge	1.00	0.10	
	Carex molesta	Field Oval Sedge	1.00	0.10	
Forbs:	Achillea millefolium	Yarrow	0.50	0.05	Summer
	Allium cernuum	Nodding Onion	0.25	0.03	Summer
	Anemone canadensis	Canada Anemone	0.20	0.02	Spring
	Asclepias syriaca	Common Milkweed	1.50	0.15	Summer
	Asclepias tuberosa	Butterfly Milkweed	0.75	0.08	Summer
	Chamaecrista fasciculata	Partridge Pea	5.00	0.50	Fall
	Dalea candida	White Prairie Clover	2.50	0.25	Summer
	Dalea purpurea	Purple Prairie Clover	5.00	0.50	Summer
	Desmodium canadense	Canada Tick Trefoil	3.00	0.30	Summer
	Echinacea pallida	Pale Purple Coneflower	1.00	0.10	Summer
	Heliopsis helianthoides	Common Ox-Eye	2.00	0.20	Summer
	Monarda fistulosa	Wild Bergamot	0.50	0.05	Summer
	Penstemon digitalis	Foxglove Beardtongue	0.25	0.03	Spring
	Ratibida pinnata	Yellow Coneflower	0.30	0.03	Summer
	Rudbeckia hirta	Black Eyed Susan	3.50	0.35	Summer
	Solidago rigida	Stiff Goldenrod	0.25	0.03	Fall
	Symphyotrichum laeve	Smooth Blue Aster	1.00	0.10	Fall
	Symphyotrichum oolentangiense	Sky Blue Aster	1.00	0.10	Fall
	Tradescantia ohiensis	Ohio Spiderwort	0.50	0.05	Spring
	Zizia aurea	Golden Alexanders	1.00	0.10	Spring

Species subject to change based on availability.

## **Exhibit 3: Illinois Noxious Weed Law Species List**

#### Section 220.60 Noxious Weeds

Effective September 23, 2002 (Alphabetized by scientific name)

The following plants within the sovereign territory of the State of Illinois are designated and declared noxious weeds:

Common	Scientific
Common ragweed	(Ambrosia artemisiifolia) within the corporate limits of cities, villages, and incorporated towns
Giant ragweed	(Ambrosia trifida) within the corporate limits of cities, villages, and incorporated towns
Marijuana	(Cannabis sativa) (outdoor grown)
Musk thistle	(Carduus nutans)
Canada thistle	(Cirsium arvense)
Kudzu	(Pueraria montana var. lobata)
Perennial sowthistle	(Sonchus arvensis)
Johnsongrass	(Sorghum halepense) and other johnsongrass x sorghum crosses with rhizomes
Sorghum almum	(Sorghum almum)

## **Exhibit 4: Illinois Exotic Weed Act Species List**

#### Illinois Exotic Weed Act

Last updated January, 2016 (Alphabetized by scientific name)

The following plants within the sovereign territory of the State of Illinois are designated Exotic Weed Act. Kudzu is the only plant also on the Noxious Weed list.

Common	Scientific
Giant hogweed	(Heracleum mantegazzianum)*
Poison hemlock	(Conium maculatum)*
Teasel	(Dipsacus spp.)*
Chinese buckthorn	(Rhamnus utilis)
Common buckthorn	(Rhamnus cathartica)
Dahurian buckthorn	(Rhamnus davurica)
Glossy buckthorn	(Rhamnus frangula)
Japanese buckthorn	(Rhamnus japonica)
Saw-toothed buckthorn	(Rhamnus arguta)
Autumn-olive	(Elaeagnus umbellata)*
Russian-olive	(Elaeagnus angustifolia)*
Thorny-olive	(Elaeagnus pungens)*
Amur honeysuckle	(Lonicera maackii)*
Morrow's honeysuckle	(Lonicera morrowii)*
Sweet breath of spring	(Lonicera fragrantissima)*
Tartarian honeysuckle	(Lonicera tatarica)*
Bohemian knotweed	(Fallopia x bohemica)*
Giant knotweed	(Fallopia sachalinensis)*
Japanese knotweed	(Fallopia japonica, syn. Polygonum cuspidatum)*
Japanese honeysuckle	(Lonicera japonica)
Kudzu	(Pueraria montana var. lobata)
Lesser celandine	(Ficaria verna)*
Multiflora rose	(Rosa multiflora)
Oriental bittersweet	(Celastrus orbiculatus)*
Purple loosestrife	(Lythrum salicaria)
Salt cedar	( <i>Tamarix</i> spp.)

## Susan Burgstrom

From: Sent:	Matthew Vollbrecht <matthew.vollbrecht@westwoodps.com> Tuesday, January 9, 2024 10:26 AM</matthew.vollbrecht@westwoodps.com>
То:	Susan Burgstrom
Cc:	Christian Schlesinger
Subject:	FW: Drain Tile mapping-Solar project Champaign County IL
Attachments:	Drains of St Joseph #3 and Silver Creek_20240109.pdf

CAUTION: External email, be careful when opening.

Susan, we have been in contact with Bryon Balbach, and he has verified that there are no drainage facilities of either district located within either Site 1 or Site 2.

Is this e-mail satisfactory or do we need any further documentation?

Thanks Matt

My Office Address has changed, see new address below

#### Matthew Vollbrecht

Wetlands Manager / Environmental Lead matthew.vollbrecht@westwoodps.com Professional Wetland Scientist #2115 Certified Minnesota Wetland Professional #1101 Lake County IL CWS #C-206 McHenry County IL CWS RECEIVED

JAN 0 9 2024

CHAMPAIGN CO. P. 8. Z DEPARTMENT

cell (612) 280-4009

Westwood 10170 Church Ranch W

10170 Church Ranch Way #201, Westminster, CO 80021 **westwoodps.com** (888) 937-5150

From: Byron Balbach <u><bbalbach@ameritech.net></u> Sent: Tuesday, January 9, 2024 9:09 AM To: Matthew Vollbrecht <u><Matthew.Vollbrecht@westwoodps.com></u> Subject: Re: Drain Tile mapping-Solar project Champaign County IL

Matthew -

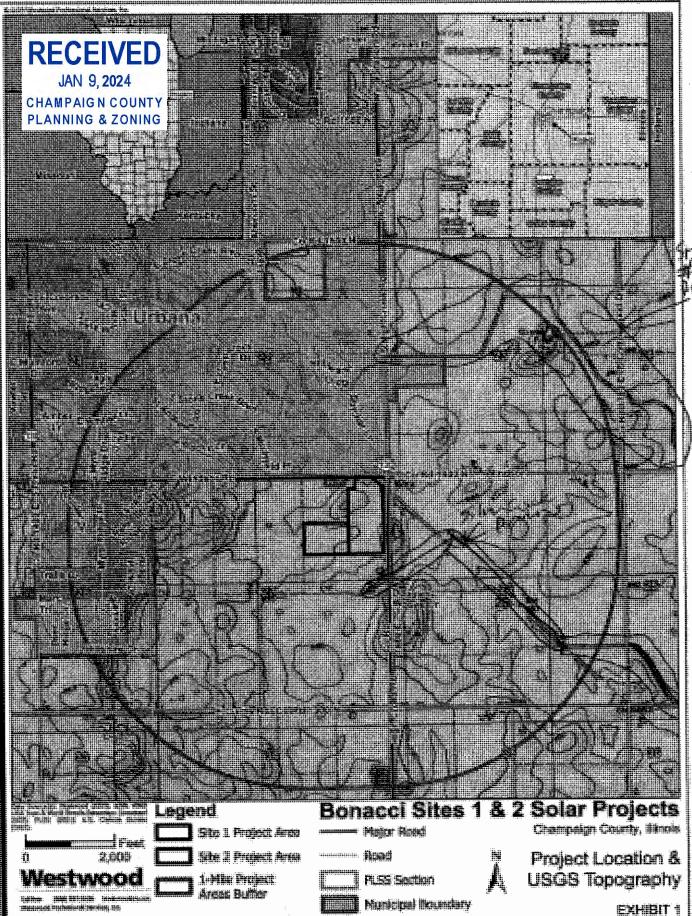
I am the attorney for both the Silver Creek Drainage District and Drainage District #3 in the Town of Saint Joseph. No drainage facilities of either district are located within either Site 1 or Site 2 of the drawings you provided. I have attached a markup showing the approximate sites where the drainage facilities of the two districts are located in the surrounding area. You may have need to consider storm water detention if your drainage off your project will increase beyond normal agricultural drainage.

#### Byron

On Monday, January 8, 2024 at 10:54:15 AM CST, Matthew Vollbrecht <a><u>statthew.vollbrecht@westwoodps.com</u></a> wrote:

Byron, as we discussed, here is the project location for our Project. If you can confirm that there is no Drainage District tile on our site, that would be great.

Thanks, Matt



## Susan Burgstrom

From:Garcia, Kevin < kjgarcia@urbanaillinois.us>Sent:Tuesday, January 9, 2024 11:10 AMTo:'Matthew Vollbrecht'Cc:Christian Schlesinger; Susan BurgstromSubject:RE: Bonacci Solar Sites 1&2 SUP application

# RECEIVED

JAN 09 2024

CHAMPAIGN CO. P & Z DEPARTMENT

Matt,

After reviewing the site plans and decommissioning plans, I do have a couple of comments:

1. Our current comprehensive plan, which was adopted in 2005, shows a potential extension of Stone Creek Boulevard to the south, across Windsor Road, which would run through the westernmost portion of Site 2;

2. We are currently writing a new comprehensive plan, which may include this same potential extension;

3. This area lacks sewer infrastructure; it would require a large investment for the site or surrounding area be developed in the future, so it is unlikely that any development would take place in the area south of Windsor and west of High Cross Road any time soon;

4. The decommissioning plan would return the sites to their pre-development condition, and would therefore accommodate future development.

We therefore have no issue with plans to develop these sites as solar farms, and therefore waive our requirement that the County hold two meetings on these cases.

Please let me know if you have any follow up questions.

Thanks,

Kevin

Kevin Garcia Principal Planner & Zoning Administrator

Community Development Services Department | City of Urbana 400 S Vine St | Urbana, Illinois 61801 217.328.8269



From: Matthew Vollbrecht <<u>Matthew.Vollbrecht@westwoodps.com</u>
Sent: Tuesday, January 9, 2024 10:38 AM
To: Garcia, Kevin <<u>kigarcia@urbanaillinois.us</u>
Cc: Christian Schlesinger <<u>cschlesinger@forefrontpower.com</u>
; Susan Burgstrom <<u>sburgstrom@ c.champaign.il.us</u>
Subject: RE: Bonacci Solar Sites 1&2 SUP application

Kevin, thanks for chatting with me yesterday about the Bonacci 1 &2 solar sites. I just wanted to follow up with a quick email to confirm that the City of Urbana doesn't have any comments on the project and doesn't think a second set of meetings for the city would be necessary?

#### Thanks, Matt

#### My Office Address has changed, see new address below

#### **Matthew Vollbrecht**

Wetlands Manager / Environmental Lead matthew.vollbrecht@westwoodps.com Professional Wetland Scientist #2115 Certified Minnesota Wetland Professional #1101 Lake County IL CWS #C-206 McHenry County IL CWS

cell (612) 280-4009

Westwood 10170 Church Ranch Way #201, Westminster, CO 80021 westwoodps.com (888) 937-5150

From: Matthew Vollbrecht
Sent: Friday, December 8, 2023 2:39 PM
To: kjgarcia@urbanaillinois.us
Cc: Christian Schlesinger <<u>cschlesinger@forefrontpower.com</u>>; Susan Burgstrom
<<u>sburgstrom@co.champaign.il.us</u>>
Subject: Bonacci Solar Sites 1&2 SUP application

Kevin, we are in the process of obtaining a SUP for two co-located solar sites in Champaign County. The sites ae located within 1-1/2 miles of the City of Urbana. As a requirement of the County ordinance, we are providing the City of Urbana a copy of the two applications. The applications are available as PDFs in the link below. Can you please let me know that you are able to download the applications?

https://westwoodps-my.sharepoint.com/:f:/p/matthew\_vollbrecht/ErHsqUN\_wxCrLjhQb8UJGYBVdjjCQJYkH\_sx5zZWqtglQ?e=CKrkQe

Thanks, and have a great weekend! Matt

My Office Address has changed, see new address below

#### Matthew Vollbrecht Wetlands Manager / Environmental Lead matthew.vollbrecht@westwoodps.com Professional Wetland Scientist #2115 Certified Minnesota Wetland Professional #1101 Lake County IL CWS #C-206 McHenry County IL CWS

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Under the Illinois Freedom of Information Act (FOIA), any written communication to or from City of Urbana employees, officials or board and commission members regarding City of Urbana business is a public record and may be subject to public disclosure.



# CHAMPAIGN COUNTY

SOIL AND WATER CONSERVATION DISTRICT 2110 W. Park Court, Suite C Champaign, IL 61821 217-352-3536 ext. 3 www.ccswcd.com

November 28th, 2023

Westwood Professional Services Attn: Matthew Vollbrecht 10170 Church Ranch Way #201 Westminster, Co 80021 (618) 280-4009 matthew.vollbrecht@westwoodps.com

Dear Mr. Vollbrecht,

A final copy of the Natural Resource Information Report for Bonacci 1 & 2, IL is enclosed. The Champaign County SWCD Board of Directors approved this NRIR on November 28th, 2023. A copy has been sent to:

Champaign County Planning & Zoning 1776 E Washington St Urbana, IL 61802 sburgstrom@co.champaign.il.us

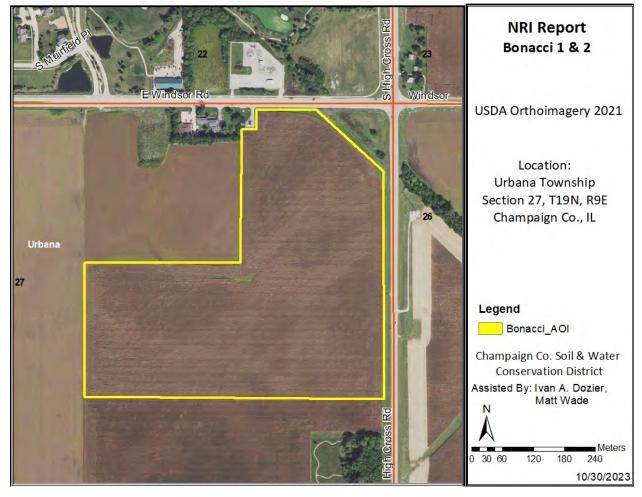
Should you have any questions please contact our office.

Sincerely,

Ivan A. Dozier Resource Conservationist Champaign County Soil & Water Conservation District

## NATURAL RESOURCE INFORMATION (NRI) REPORT 23.15

PETITIONER: WESTWOOD PROFESSIONAL - WESTMINSTER, CO



## PREPARED BY: CHAMPAIGN COUNTY SOIL & WATER CONSERVATION DISTRICT 2110 W PARK CT, STE C, CHAMPAIGN, IL 61821 (217) 352-3536 EXT 3 | WWW.CCSWCD.COM

## Champaign County Soil and Water Conservation District Natural Resource Information Report (NRI)

Date District Board Reviewed Application	November 21, 2023
Applicant's Name	Westwood Professional Development
Contact Person	Matthew Vollbrecht
Size of Subject Property	74.1
Present Zoning	Agricultural
Proposed Zoning	Special Use Permit
Present Land Use	Agricultural
Proposed Land Use	Solar Farm

Copies of this report or notification of the proposed land-use change were provided to:	Yes	No
The Applicant	х	
The Contact Person	х	
The Local/Township Planning Commission	n/a	n/a
The Village/City/County Planning & Zoning Department	х	
The Champaign County Soil & Water Conservation District Files	х	

Report Prepared By: Erin Gundy, Resource Conservationist

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## Forward

Soil and Water Conservation Districts are required to prepare Natural Resource Information (NRI) Reports under the Illinois Soil and Water Conservation Act of 1977, Illinois Revised Statutes, Chapter Five.

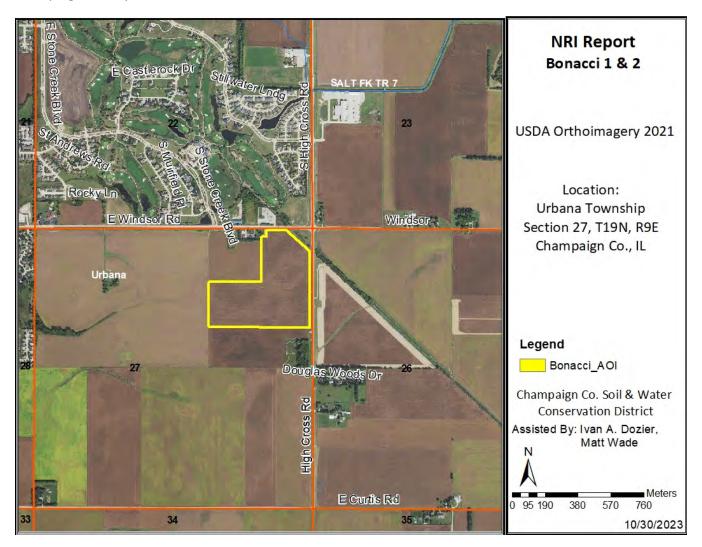
Section 22.02a The Soil and Water Conservation District shall make all natural resource information available to the appropriate county agency or municipality in the promulgation of zoning, ordinances or variances. Any person who petitions any municipality or county agency in the district for variation, amendment, or other relief from municipality's or county's zoning ordinance or who proposes to sub-divide vacant or agricultural lands therein shall furnish a copy of such petition or proposal to the Soil and Water Conservation District. The Soil and Water Conservation District shall be given not more than thirty days from the time of receipt of the petition or proposal to issue its written opinion concerning the petition or proposal and submit the same to the appropriate county agency or municipality for further action. Added by Act approved December 3, 1971.

This report provides technical data necessary to evaluate the natural resources of a specific area and the impacts or limitations associated with the proposed land use change. The report is limited to information researched by the Champaign County Soil and Water Conservation District staff. (Technical information is obtained from several different sources and may be subject to modification based on detailed site investigations or new technical information.) The information gathered in this report comes from several key reference materials and are cited throughout this report and listed in the Reference section. Any questions on the information contained in this report can be directed to:

Champaign County Soil and Water Conservation District 2110 W. Park Court, Suite C Champaign, IL 61821 Phone 217-352-3536 ext. 3

## **Subject Property Location**

Location Map for Natural Resources Information Report for the Westwood Professional Development Bonacci 1&2 project near Windsor Rd in Urbana, IL. The property is located in Section 27, Township 19N, Range 9E in Champaign County, Illinois.



## Summary and Concerns of the Board

The Champaign County Soil and Water Conservation District has reviewed the proposed land use change and has the following concerns relevant to the impact on the area's natural resources.

- 1. All soils on the subject property are not suitable sanitary facilities or dwellings. It is advised to perform onsite investigations with a professional to determine construction strategy before moving forward. See pages 7-9.
- 2. Most of the soils on the subject property are not suitable for dwellings or small commercial buildings. It is advised to consult with a professional to determine safety and quality of current and future construction projects. See pages 7-9.
- 3. The subject property is located in both the *Silver Creek* and *St. Joseph-3* drainage districts. Please contact drainage district officials for questions or concerns regarding drainage management.
- 4. The average Land Evaluation (LE) score for this site is: 97.1. See pages 13-14.
- 5. A Wetland is present within the subject property. It is recommended to take precautions to protect wetland and water quality and health during project lifespan. See pages 17-18.

## **Soil Information**

The soil information comes from the United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) Soil Survey of Champaign County. This information is important to all parties involved in determining the suitability of the proposed land use change. Each polygon is given a number with letters, which represents its soil type, slope, flooding, etc., and is then called a map unit. Each soil map unit has limitations for a variety of land uses, which are explained using interpretations.

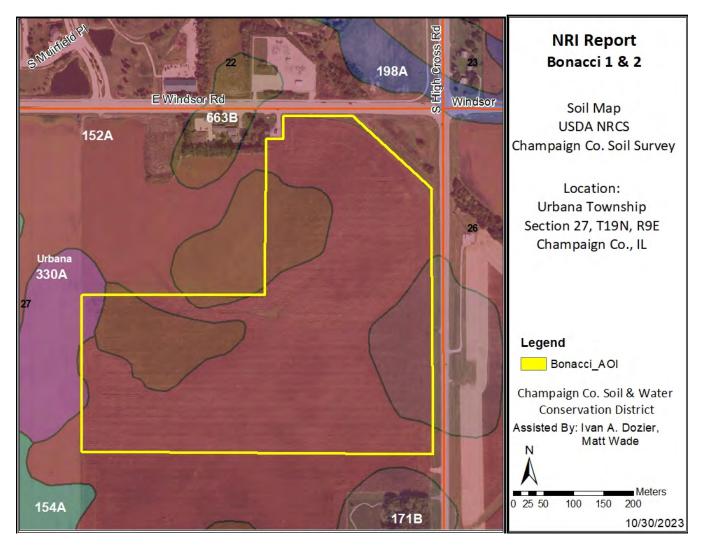


Table 1. Soil map unit descriptions	Table 1.	Soil	map	unit	descr	iptions
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Map Unit Symbol	Description	Acres	Percent of Area
152A	Drummer silty clay loam, 0-2% slopes	24.8	65.7%
171B	Catlin silt loam, 2-5% slopes	3.4	9.0%
330A	Peotone silty clay loam, 0-2% slopes	0.6	1.5%
663B	Clare silt loam, 2-5% slopes	9.0	23.8%

## **Introduction to Soil Interpretations**

Non-agricultural soil interpretations are ratings that help engineers, planners, and others 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. However, most of these practices are costly. The final decision in selecting a site for a land use generally involves weighing the costs for site preparation and maintenance.

Soil properties influence the 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 type of building limitation 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. Organic soils, when present on the subject property, are referenced in the hydric soils section of the report.

The area of development will be susceptible to erosion both during and after construction. Any areas left bare for more than 7 days should be temporarily seeded or mulched and permanent vegetation needs to be established as soon as possible.

### Limitation Ratings

- 1. *Not limited* This soil has favorable properties for the intended use. The degree of limitation is minor and easy to overcome. Those involved can expect good performance and low maintenance.
- 2. *Somewhat limited* This soil has moderately favorable properties for the intended 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 "*not limited*."
- 3. *Very limited* This soil has one or more properties that are unfavorable for the rated use. These may include the following: steep slopes, bedrock near the surface, flooding, high shrink-swell potential, a seasonally 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 Interpretations**

#### Sanitary Facilities

The table below shows the degree and kind of soil limitations that affect septic tank absorption fields and sewage lagoons.

<u>Septic Tank Absorption Fields</u>: Areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. The ratings are based on soil properties, site features, and observed performance of the soils. Permeability, high water table, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Large stones and bedrock or a cemented pan interfere with installation. Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage can affect public health. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively.

Table 2. Septic tank absorption fields.

Map Unit Symbol	Septic Tank Absorption Fields	Acres	Percent of Area
152A	Very limited: ponding, depth to saturated zone, slow water movement	24.8	65.7%
171B	Very limited: depth to saturated zone, slow water movement	3.4	9.0%
330A	Very limited: ponding, depth to saturated zone, slow water movement	0.6	1.5%
663B	Very limited: depth to saturated zone, slow water movement, seepage-bottom layer	9.0	23.8%

<u>For the subject property</u>: 100% of the soils on the property are very limited for the use of septic tank absorption fields and special design is required for any septic tank absorption field.

### Building Site Development

The table below shows the degree and the kind of soil limitations that affect dwellings with or without basements and small commercial buildings.

<u>Dwellings and Small Commercial Buildings</u>: Structures built on a shallow foundation on undisturbed soil that are three stories or less. The ratings are based on soil properties, site features, and observed performance of the soils. High water table, depth to bedrock or to a cemented pan, large stones, slope, and flooding effect the ease of excavation, construction, and maintenance.

Map Unit Symbol	Dwellings with Basements	Dwellings without Basements	Small Commercial Buildings	Acres	Percent of Area
152A	Very limited: ponding, depth to saturated zone, shrink-swell	Very limited: ponding, depth to saturated zone, shrink-swell	Very limited: ponding, depth to saturated zone, shrink-swell	24.8	65.7%
171B	Somewhat limited: depth to saturated zone, shrink-swell	Somewhat limited: shrink-swell	Somewhat limited: shrink-swell	3.4	9.0%
330A	Very limited: ponding, depth to saturated zone, shrink-swell	Very limited: ponding, depth to saturated zone, shrink-swell	Very limited: ponding, depth to saturated zone, shrink-swell	0.6	1.5%
663B	Somewhat limited: depth to saturated zone, shrink-swell	Somewhat limited: shrink-swell	Somewhat limited: shrink-swell	9.0	23.8%

#### Table 3. Dwellings and small commercial buildings limitations.

## Soil Water (Wetness) Features

This section gives estimates of various soil water (wetness) features that should be taken into consideration when reviewing engineering for a land use project.

<u>Hydrologic Soil Groups (HSGs)</u>: The groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

- Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- Group B: Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

- Group C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.
   Note: if a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D) the first letter is for drained areas and the second is for undrained areas.

<u>Surface Runoff</u>: Refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based upon slope, climate, and vegetative cover and indicates relative runoff for very specific conditions (it is assumed that the surface of the soil is bare and that the retention of surface water resulting from the irregularities in the ground surface is minimal). The classes are negligible, very low, low, medium, high, and very high.

<u>Water Table</u>: Refers to a saturated zone in the soil and the data indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. These estimates are based upon observations of the water table at selected sites and on evidence of a saturated zone (grayish colors or mottles, called redoximorphic features) in the soil. Note: a saturated zone that lasts for less than a month is not considered a water table.

<u>Ponding</u>: Refers to standing water in a closed depression and the data indicates duration and frequency of ponding.

- Duration: expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days and *very long* if more than 30 days.
- Frequency: expressed as *none* (ponding is not possible), *rare* (unlikely but possible under unusual weather conditions), *occasional* (occurs, on average, once or less in 2 years), *frequent* (occurs, on average, more than once in 2 years).

<u>Flooding</u>: The temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

- Duration: Expressed as *extremely brief* if 0.1 hour to 4 hours; *very brief* if 4 hours to 2 days; *brief* if 2 to 7 days; *long* if 7 to 30 days; and *very long* if more than 30 days.
- Frequency: Expressed as *none* (flooding is not probable), *very rare* (very unlikely but possible under extremely unusual weather conditions (chance of flooding is less than 1% in any year)), *rare* (unlikely but possible under unusual weather conditions (chance of flooding is 1 to 5% in any year)), *occasional* (occurs infrequently under normal weather conditions (chance of flooding is 5 to 50% in any year but is less than 50% in all months in any year)), and *very frequent* (likely to occur very often under normal weather conditions (chance of flooding is more than 50% in all months of any year)).
   Note: The information is based on evidence in the soil profile. In addition, consideration is also given to

Note: The information is based on evidence in the soil profile. In addition, consideration is also given to local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Map Unit Symbol	HSG	Surface Runoff	Depth to Water Table (ft)		Ponding		Flooding		
			Upper Limit	Lower Limit	Kind	Duration	Frequency	Duration	Frequency
152A	B/D	Neg	0.0-1.0	6.0	Apparent	Brief	Frequent	-	None
171B	С	Low	2.0-3.5	3.7-5.4	Perched	-	None	-	None
330A	C/D	Neg	0.0-1.0	6.0	Apparent	Brief	Frequent	-	None
663B	С	Low	2.0-3.5	6.0	Apparent	-	None	-	None

Table 4. Soil water (wetness) features.

### **Hydric Soils**

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. Soil maps may not be small enough to show inclusions of hydric soils, so it is important to consult a soil scientist if building residential areas on hydric soils or soils with hydric inclusions.

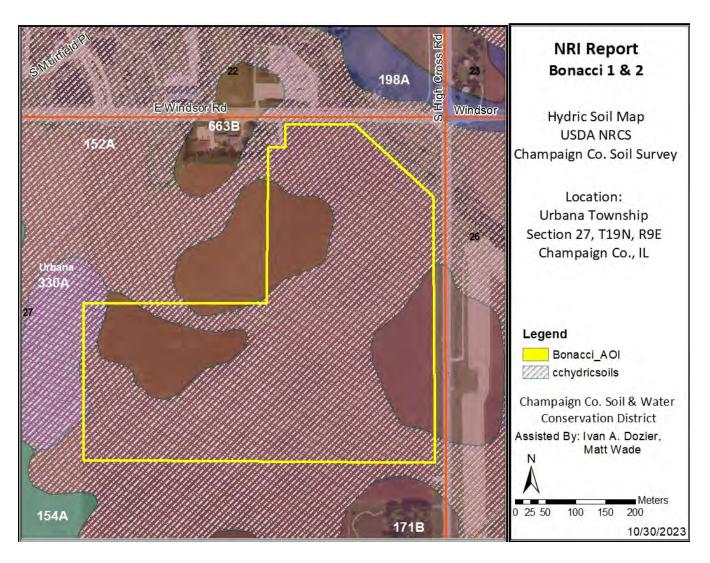
On most agricultural soils in the county that are poorly or somewhat poorly drained, subsurface agriculture drainage tile occurs. This expedites drainage but must be maintained and undisturbed so the soil does not return to its original hydrologic condition.

The Champaign County SWCD recommends the following for an intense land use, such as a subdivision:

- 1. A topographical survey with 1-foot contour intervals to define the flood area.
- 2. An intensive soil survey to define locations of hydric inclusions.
- 3. A drainage tile survey to locate tiles that must be preserved.

Tuble 5. Hydrie 50hs				
Map Unit Symbol	Drainage Class	Hydric Designation	Acres	Percent of Area
152A	Poorly drained	Hydric	24.8	65.7%
171B	Moderately well drained	Non hydric	3.4	9.0%
330A	Very poorly drained	Hydric	0.6	1.5%
663B	Moderately well drained	Non hydric	9.0	23.8%
			Percent Hydric	67.2%

Table 5. Hydric soils.



## **Soil Erosion and Sediment Control**

Erosion is the wearing away of the soil by water, wind, and other forces and a soil's erodibility is mainly determined by the following properties: soil texture, slope, soil structure, soil organic matter content. Soil erosion threatens the nation's soil productivity and contributes to pollutants in waterways. Sediment entering creeks, rivers, and lakes degrade water quality and reduce capacity, which increases the risk of flooding and disrupts ecosystems. Sediment also carries other possible pollutants, such as chemicals and metals, by adhering to the sediment's surface.

## **Erosion Control at Construction Sites**

Construction sites can experience 20 to 200 tons/acre/year of soil loss, which is greater than other land uses, like agriculture, averaging 4-5 tons/acre/year. It is extremely important that the developer employ Best Management Practices, like the ones listed below, to help reduce soil erosion and protect water quality during and after construction.

- Silt Fencing: A woven geotextile fabric stretched across and attached to supporting posts used to intercept sediment-laden runoff from small drainage areas of disturbed soil. The purpose is to filter out sediment from runoff before it enters a water body.
- **Construction Road Stabilization:** The stabilization of temporary construction access routes, subdivision roads, on-site vehicle transportation routes, and construction parking areas with stone immediately after grading the area to reduce erosion.

• Vegetative Cover: One of the most important means to control runoff is to plant temporary vegetation around the perimeter of the construction site. This provides a natural buffer to filter sediment and chemicals. The CCSWCD recommends that temporary grass be planted (i.e. smooth bromegrass, oats, cereal rye) to help protect soil from erosion during construction.

## EPA Stormwater Pollution Prevention Plan (SWPPP) Reference Tool

EPA requires a plan to control storm water pollution for all construction sites over 1 acre in size. A Guide for Construction Sites is a reference tool for construction site operators who must prepare a SWPPP to obtain NPDES permit coverage for their storm water discharges. More information at the following website: <a href="http://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">http://www.epa.gov/npdes/stormwater-discharges-construction</a>

Map Unit Symbol	Slope	Rating	Acres	Percent of Area
152A	0.5%	Slight	24.8	65.7%
171B	3.0%	Moderate	3.4	9.0%
330A	0.5%	Slight	0.6	1.5%
663B	3.0%	Moderate	9.0	23.8%

Table 6. Soil erosion potential.

## **Prime Farmland Soils**

Prime farmland soils are an important resource to Champaign County. Some of the most productive soils in the world occur locally. Each soil map unit in the United States is assigned a prime or non-prime rating. Urban or built-up land on prime farmland soils is <u>not</u> prime farmland.

Table 7. Prime farmland designation.

Map Unit Symbol	Prime Designation	Acres	Percent of Area
152A	Prime farmland if drained	24.8	65.7%
171B	All areas are prime farmland	3.4	9.0%
330A	Prime farmland if drained	0.6	1.5%
663B	All areas are prime farmland	9.0	23.8%
	100%		

## The Land Evaluation and Site Assessment System

Decision-makers in Champaign County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the USDA-NRCS and takes into consideration local conditions, such as physical characteristics of the land, compatibility of surrounding land uses, and urban growth factors. The LESA system is a two-step procedure:

- Land Evaluation (LE) the soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agricultural use. The best group is assigned a value of 100 and is based on data from the Champaign County Soil Survey. The Champaign County LE designates soils with a score of 91 to 100 as best prime farmland, as reported in Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils. Best Prime Farmland consists of:
  - a) Soils identified as agricultural value groups 1, 2, 3, and/or 4
  - b) Soils that, in combination on a subject site, have an average LE of 91 or higher
  - c) Any site that includes a significant amount (10% or more of the area proposed to be developed) of agriculture value groups 1, 2, 3, and/or 4

• Site Assessment (SA) – the site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives.

The Champaign County LESA system is designed to provide officials with a systematic objective means to numerically rate a site in terms of its agricultural importance.

- To assist officials in evaluating the proposed conversion of farmland on a parcel or site in zoning cases that include farmland conversion to a non-agricultural land use.
- To assist in the review of state and federal projects for compliance with the Illinois Farmland Preservation Act and the Federal Farmland Protection Policy Act in terms of their impact on important farmland.

Note: A land evaluation (LE) score will be compiled for every project property, but a site assessment score is not applicable in most cases, making the full LESA score unavailable.

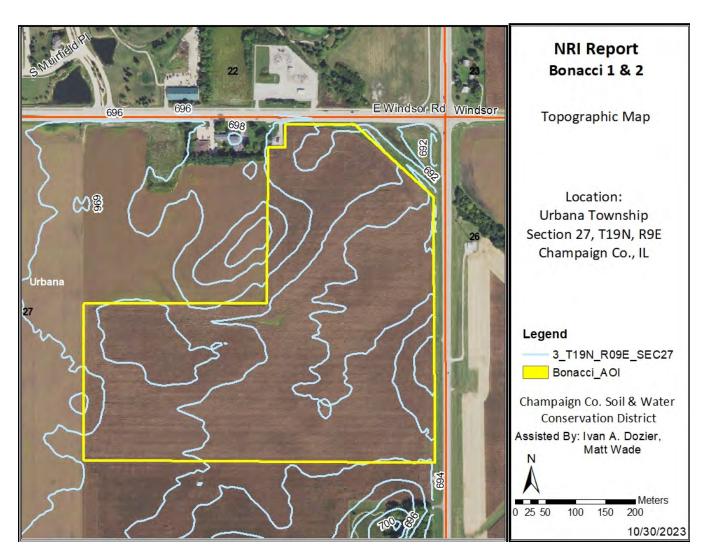
Map Unit Symbol	Value Group	Relative Value	Acres	Product (Relative Value*Acres)
152A	2	100	24.8	582.9
171B	3	94	3.4	327.6
330A	7	85	0.6	174.3
663B	4	91	9.0	
Totals			37.8	3669.6
LE Score		LE = 3669.6/37.8		LE = 97.1

Table 8. Land Evaluation and Site Assessment System score.

For the subject property: the overall Land Evaluation (LE) score is 97.1.

## **Topographic Information**

United States Geologic Survey (USGA) topographic maps give information on elevation, which are important mostly to determine slope, drainage direction, and watershed information. Elevation determines the area of impact of floods. Slope information determines steepness and erosion potential. Drainage directions determine where water leaves the subject property, possibly impacting surrounding natural resources.



## Watershed Information

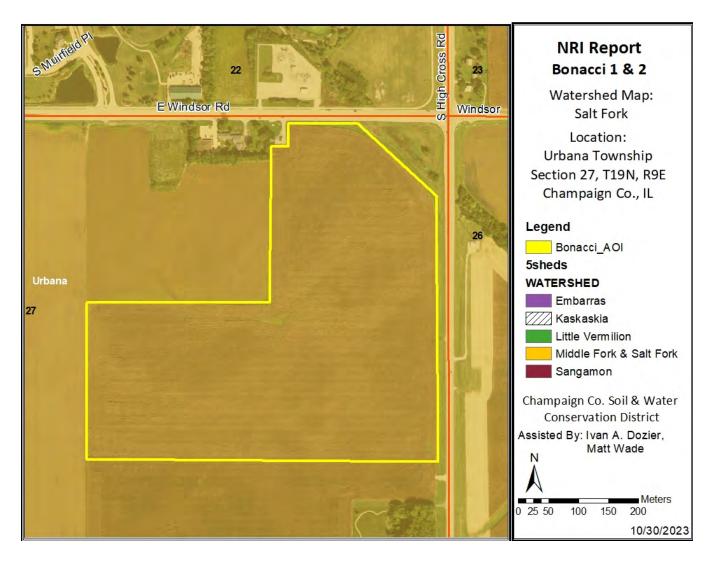
Watershed information is given when land use is changed to a subdivision type of development on parcels greater than 10 acres. A watershed is an area of land that drains to an associated water resource, such as a wetland, river, or lake. Rainwater carries pollutants through watersheds, impacting natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and implications of their activities.

The following are recommendations to developers for protection of watersheds:

- Preserve open space
- Maintain wetlands as part of development
- Use natural water management
- Prevent soil from leaving construction sites
- Protect subsurface drainage

- Use native vegetation
- Retain natural features
- Mix housing and style types
- Decrease impervious surfaces
- Reduce area disturbed by mass grading
- Treat water where it falls

For the subject property: the property is located in the Middle Fork/Salt Fork Watershed.



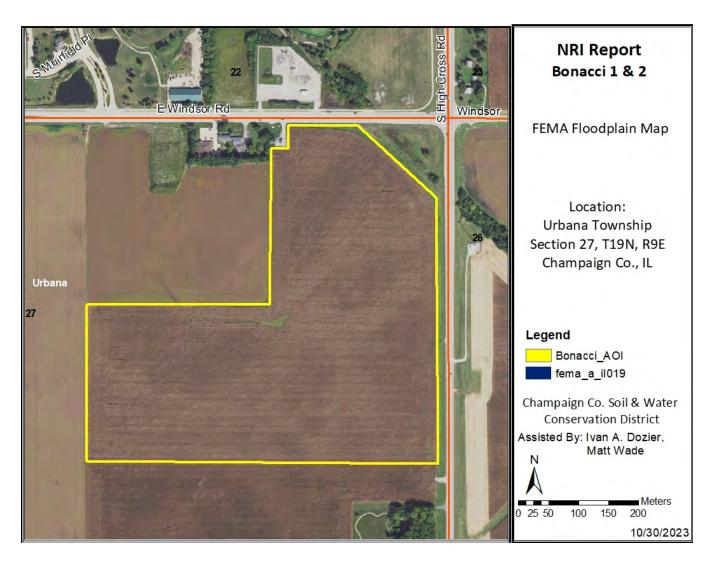
## **Floodplain and Wetland Information**

## **Floodplain 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 that demand protection since they have water storage and conveyance functions that affect upstream and downstream flows, water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is dangerous to people and destructive to their properties. The following map can help developers and future homeowners to "sidestep" potential flooding or ponding problems. The Flood Insurance Rate Map (FIRM) was produced by the Federal Emergency Management Agency (FEMA) to define flood elevation adjacent to tributaries and major bodies of water that are superimposed onto a simplified USGS topographic map.

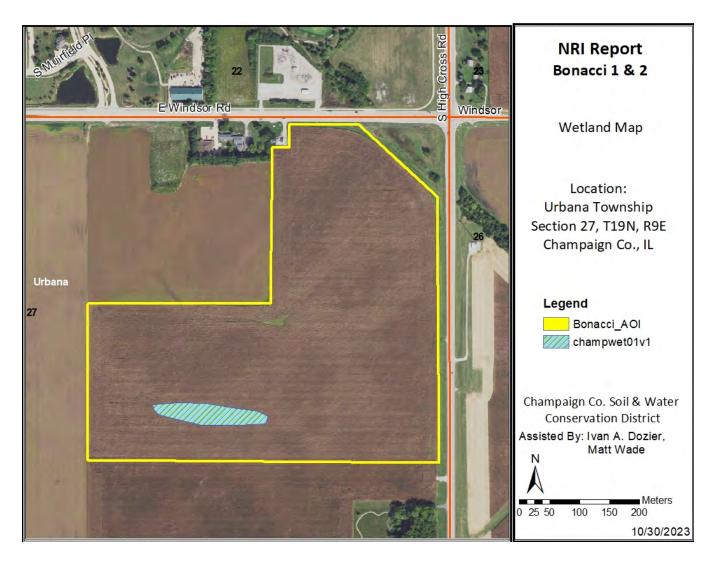
For the subject property: the property is not in the floodplain.



#### Wetland Information

Wetlands function in many ways to provide numerous benefits to society and the environment, including flood control, cleanse water, recharge groundwater, and provide a wildlife habitat. However, approximately 95% of the wetlands that were historically present in Illinois have been destroyed. It is crucial that we take steps to conserve current wetlands and reestablish new wetlands where once destroyed. Wetland determinations are made by a certified NRCS staff.

For the subject property: a wetland is present on the subject property.



## Wetland and Floodplain Regulations

Please read the following if you are planning to do any work near a stream, lake, wetland, or floodway, including: 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 floodway subject to State or Federal regulatory jurisdiction.

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 used of the waters within the State of Illinois could permanently destroy and adversely impact the public. Therefore, please contact the proper authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

**Regulatory Agencies:** 

- Wetlands or U.S. Waters: U.S. Army Corps of Engineers
- Floodplains: Illinois Department of Natural Resources/Office of Water Resources, Natural Resources Way, Springfield, IL
- Water Quality/Erosion Control: Illinois Environmental Protection Agency

Coordination: we recommend early coordination with the agencies BEFORE finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. This could reduce time required to process necessary approvals and reduce expense.

## **Cultural and Animal Resources**

## **Cultural Resources**

The most common cultural resources found during changes in land use are historical properties or 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.

The Illinois Historic Preservation Agency may require a Phase 1 Archaeological review to identify any cultural resources that may be on the site. The IHPA has not been contacted by the Champaign County SWCD. The applicant may need to contact the IHPA according to current Illinois law.

## **Animal Resources**

According to the Illinois Endangered Species Protection Act & Illinois Natural Areas Preservation Act, state agencies or local units of government must consult Illinois Department of Natural Resources (IDNR) about proposed actions that they will authorize, fund, or perform. Private parties do not have to consult, but they are liable for prohibited taking of state-listed plants and animals or for adversely modifying a Nature Preserve or a Land and Water Preserve. Home rule governments may delegate this responsibility through duly enacted ordinances to the parties seeking authorization or funding of the action.

## **Ecologically Sensitive Areas**

Biodiversity is the sum of total of all the plants, animals, fungi, and microorganisms in the world, or in a particular area that make up the fabric of the Earth and allow it to function. Biodiversity must be protected, as it is diminishing, which weakens entire natural systems. It is intrinsically valuable for an ecosystem to be biologically diverse to sustain ecosystem health and support life.

As part of the Natural Resources Information Report, staff checks if any nature preserves are in the general vicinity of the subject property. 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.

<u>For the subject property</u>: as shown on the below EcoCAT, there is no record of sensitive areas or endangered species in or near the subject property.





Applicant: NRCS Champaign County Field Office Contact: Ivan A. Dozier Address: 2110 W. Park court suite C Champaign , IL 61821 Project: Bonacci

Project: Bonacci Address: Urbana, IL IDNR Project Number: 2407070 Date: 11/20/2023

Description: NRI

#### Natural Resource Review Results

This project was submitted for information only. It is not a consultation under Part 1075.

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

#### Location

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

County: Champaign

Township, Range, Section: 19N, 9E, 27

IL Department of Natural Resources Contact Impact Assessment Section 217-785-5500 Division of Ecosystems & Environment



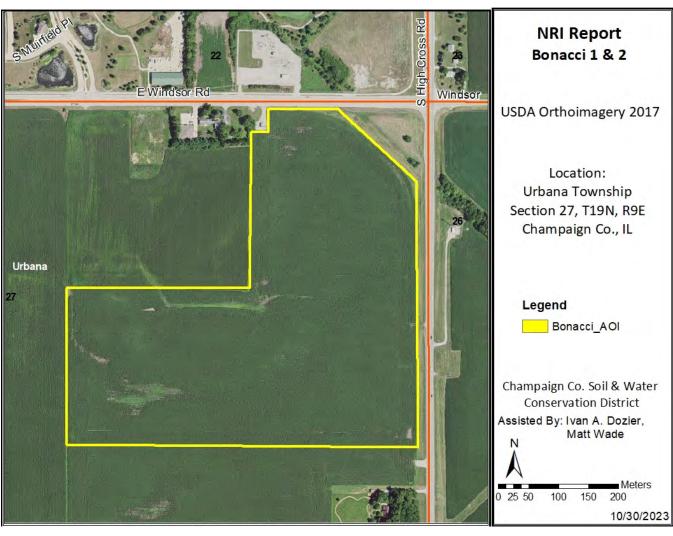
Government Jurisdiction U.S. Department of Agriculture

#### Disclaimer

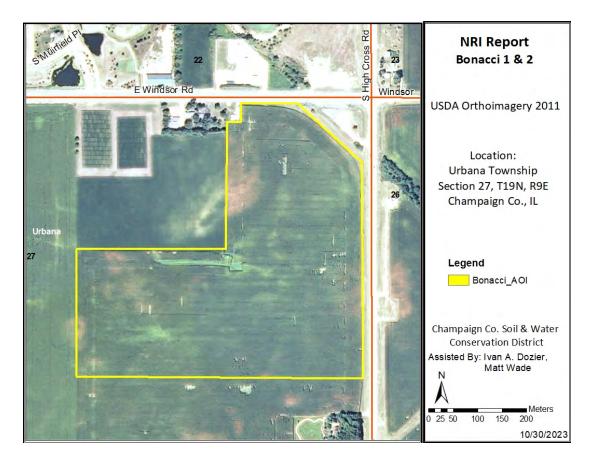
The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site 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.

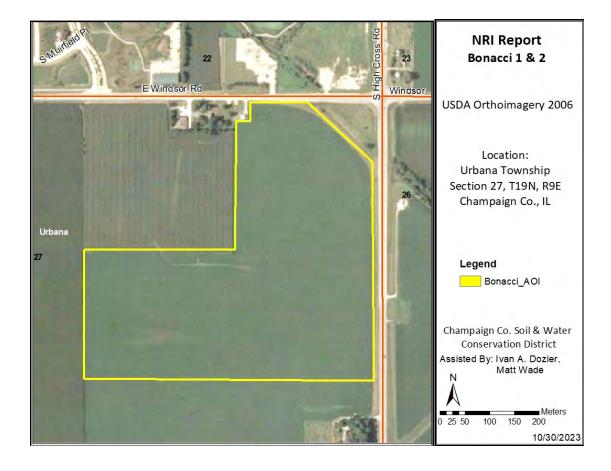
#### Terms of Use

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.



## **Historic Aerial Photos**





## **Glossary and Acronyms**

<u>Agriculture</u> – The growing, harvesting, and storing of crops, including legumes, hay, grain, fruit; and truck or vegetables, including dairy, poultry, swine, sheep, beef cattle, pony and horse, fur, and fish and wildlife; 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, or 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.

<u>ADT</u> – average daily traffic that a local road normally receives, based upon records by the County Superintendent of Highways.

<u>B.G.</u> – below grade. Under the surface of the Earth.

<u>Bedrock</u> – indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

<u>Flooding</u> – 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 sue 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).

<u>High Water Table</u> – a seasonal highwater table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian.

<u>Water Table, Apparent</u> – a thick zone of free water in the soil indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil. <u>Water Table, Artesian</u> – a water table under hydrostatic head, generally beneath an impermeable layer. When layer is penetrated, the water level rises in the uncased borehole.

<u>Water Table, Perched</u> – a water table standing above an unsaturated zone, often separated from a lower wet zone by a dry zone.

<u>Delineation</u> – (for wetlands) a series of orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

<u>Determination</u> – (for wetlands) a polygon drawn on a map using map information that gives an outline of a wetland.

<u>Hydric Soil</u> – soil that 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).

<u>Intensive Soil Mapping</u> – mapping done on a small, intensive scale than a modern soil survey to determine soil properties of a specific site, i.e. mapping for septic suitability.

Land Evaluation 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 is shown on a map. An accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of soils under different uses and the soils' response to management. Predictions are made for areas of soil at specific places. Soil information collected in a soil survey are useful in developing land use plans and alternatives.

<u>Palustrine</u> – name given to inland fresh water wetlands.

<u>Permeability</u> – values listed estimate the range of 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

<u>Potential Frost Action</u> – 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 – lands that are best suited for food, feed, forage, fiber, and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban, built up land, or water areas. When well-managed, the soil qualities and moisture supply provide a sustained high yield of crops with minimum inputs of energy and economic resources 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 flooding during the growing season. The slope ranges from 0 to 5 percent. (USDA Natural Resources Conservation Service)

<u>Productivity Indexes</u> – express the estimated yields of the major grain crops in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state (Muscatine, Ipava, Sable, Lisbon, Drummer, Flanagan, Littleton, Elburn, Joy soil series). See Circular 1156 from the Illinois Cooperative Extension Service.

<u>Seasonal</u> – when used in reference to wetlands, indicates the area flooded only during a portion of the year.

<u>Shrink-Swell Potential</u> – indicates volume changes to be expected for the specific soil material with changes in moisture content. Soil Mapping Unit – collection of soil and miscellaneous areas delineated in mapping. 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 terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for tax and in terms of ranges of tax adjuncts and inclusions.

Soil Series – a group of soils formed from a type of parent material, having horizons that, except for texture of the surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, mineralogy, and chemical composition.

<u>Subsidence</u> – applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

<u>Terrain</u> – the area or surface over which a particular rock or group of rocks is prevalent.

<u>Topsoil</u> – portion of the soil profile where higher concentrations or organic material, fertility, bacterial activity, and plant growth take place. Depths of topsoil vary between soil types.

<u>Watershed</u> – 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, ditches, and ponding areas, such as detention structures, natural ponds, or wetlands.

<u>Wetland</u> – an area that has a predominance of hydric soils that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophilic vegetation typically adapted for life in saturated soil conditions.

## References

Field Office Technical Guide. USDA Natural Resources Conservation Service.

Flood Insurance Rate Map. National Flood Insurance Program, Federal Emergency Management Agency.

Illinois Urban Manual. 2016. Association of Illinois Soil & Water Conservation Districts.

Soil Survey of Champaign County. USDA Natural Resources Conservation Service.

Wetlands Inventory Maps. Department of the Interior.

Potential for Contamination of Shallow Aquifers in Illinois. Illinois Department of Energy and Natural Resources, State Geological Survey Division.

Land Evaluation and Site Assessment System. The Kendall County Department of Planning, Building, and Zoning, and the Champaign County Soil and Water Conservation District. In cooperation with USDA Natural Resources Conservation Service.

## 126-S-23 & 127-V-23 Site Images



From IL 130 facing NW to subject property (there will be no access from IL 130)



From Windsor Road facing SE to subject property



## 126-S-23 & 127-V-23 Site Images

From IL 130 facing NW to substation and vacant property on north side of Windsor Road



From southbound IL 130 at Windsor Road intersection facing SW to subject property

## PRELIMINARY DRAFT

#### 126-S-23

## SUMMARY OF EVIDENCE, FINDING OF FACT AND FINAL DETERMINATION

 $\mathbf{of}$ 

## **Champaign County Zoning Board of Appeals**

Final Determination:	{RECOMMEND APPROVAL / RECOMMEND DENIAL}	
Date:	{January 25, 2024}	
Petitioners:	FFP IL Community Solar, via agent Christian Schlesinger, with participating landowner Kathryn Bonacci	
Request:	Authorize a Community PV Solar Farm with a total nameplate capacity of 4.5 megawatts (MW), including access roads and wiring, in the AG-2 Zoning District, and including the following waivers of standard conditions:	
	Part A: A waiver for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality per Section 6.1.5 B.(2)a.(a).	
	Part B: A waiver for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet, per Section 6.1.5 D.(3)a.	
	Part C: A waiver for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.	
	Other waivers may be necessary.	

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## PRELIMINARY DRAFT

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## SUMMARY OF EVIDENCE

From the documents of record and the testimony and exhibits received at the public hearing conducted on **January 25, 2024,** the Zoning Board of Appeals of Champaign County finds that:

- 1. FFP IL Community Solar, LLC, a subsidiary of Forefront Power LLC, 100 Montgomery Street, Suite 725, San Francisco, CA, 94104, with Yumitake Furukawa (Deputy Chief Executive Officer, Chief Compliance Officer); Charlie Sohm (Chief Development Officer), Daniel Taylor (Chief Strategy Officer), Yohei Kishi (Chief Financial Officer) and Kristin Frooshani (Chief Legal Officer, Secretary); via agent Christian Schlesinger, and participating landowner Kathryn Bonacci, are the developers of the proposed PV Solar Farm.
- 2. The subject property is three tracts of land totaling 55.81 acres located in the Northeast Quarter of Section 27, Township 19 North, Range 9 East of the Third Principal Meridian in Urbana Township, and commonly known as farmland owned by Kathryn Bonacci in the southwest corner of the intersection of Windsor Road and IL 130 (High Cross Rd), Urbana.
  - A. The proposed 4.5 MW Bonacci Solar Site 1 would cover approximately 29.54 acres on the east side of the tract.
- 3. Regarding municipal extraterritorial jurisdiction and township planning jurisdiction:
  - A. The subject property is adjacent to the City of Urbana, a municipality with zoning. Municipalities with zoning are notified of Special Use Permit cases, but do not have protest rights in these cases.
    - (1) The City of Urbana Comprehensive Plan calls for residential development in this area.
    - (2) In an email received January 9, 2024, Kevin Garcia with the City of Urbana stated the following:
      - a. Our current comprehensive plan, which was adopted in 2005, shows a potential extension of Stone Creek Boulevard to the south, across Windsor Road, which would run through the westernmost portion of Site 2;
      - b. We are currently writing a new comprehensive plan, which may include this same potential extension;
      - c. This area lacks sewer infrastructure; it would require a large investment for the site or surrounding area be developed in the future, so it is unlikely that any development would take place in the area south of Windsor and west of High Cross Road any time soon;
      - d. The decommissioning plan would return the sites to their pre-development condition, and would therefore accommodate future development. We therefore have no issue with plans to develop these sites as solar farms, and therefore waive our requirement that the County hold two meetings on these cases."

#### PRELIMINARY DRAFT

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B. The subject property is located within Urbana Township, which does not have a Planning Commission. Townships with Planning Commissions are notified of Special Use Permit cases, but do not have protest rights in these cases.

#### GENERALLY REGARDING LAND USE AND ZONING IN THE IMMEDIATE VICINITY

- 4. Regarding land use and zoning on the subject property and in the vicinity of the subject property:
  - A. The 55.81-acre subject property is zoned AG-2 Agriculture and is currently in agricultural production.
    - (1) The proposed PV SOLAR FARM would be located on approximately 29.8 acres of the subject property.
  - B. Land north of the subject property is within the City of Urbana. There is an Ameren electrical substation and vacant land to the north.
    - (1) There are two residences located northwest of the subject property adjacent to A&E Animal Hospital.
  - C. Land to the west, east, and south of the subject property is zoned AG-2 Agriculture and is in agricultural production.
    - (1) There is a 6 MW PV SOLAR ARRAY under construction on the west side of the subject property which was approved in Case 080-S-22 (Donato).

#### GENERALLY REGARDING THE PROPOSED SPECIAL USE

- 5. Regarding the Site plan for the proposed Special Use received January 10, 2024:
  - A. The Site Plan includes the following proposed features:
    - (1) One 4.5-megawatt community PV SOLAR FARM site on approximately 29.54 acres; and
    - (2) 7-feet tall perimeter fence with gated security entrance; and
    - (3) One equipment pad; and
    - (4) A gravel access road extending approximately 1,500 feet south from Windsor Road; and
    - (5) The Point of Interconnection (POI) is proposed to connect to an existing power line and substation on Windsor Road; and
    - (6) The nearest residence is approximately 262 feet from the solar farm fenced area; and
    - (7) There is a separation of 100 feet between the PV SOLAR FARM perimeter fence and the street centerline of Windsor Road.
  - C. There are no previous Zoning Use Permits for the subject property.
  - D. There are no previous Zoning Cases for the subject property.

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## PRELIMINARY DRAFT

#### **GENERALLY REGARDING SPECIFIC ORDINANCE REQUIREMENTS**

- 6. Regarding authorization for a "COMMUNITY PV SOLAR FARM" in the AG-2 Agriculture Zoning District in the *Zoning Ordinance*:
  - A. The County Board amended the Zoning Ordinance by adopting PV SOLAR FARM requirements when it adopted Ordinance No. 2018-4 on August 23, 2018.
    - (1) The County Board amended the Zoning Ordinance by amending PV SOLAR FARM requirements when it adopted Ordinance 2020-1 on February 24, 2020, Ordinance 2020-7 on May 22, 2020, and Ordinance 2020-8 on May 22, 2020.
  - B. The following definitions from the *Zoning Ordinance* are especially relevant to the requested Special Use Permit (capitalized words are defined in the Ordinance):
    - (1) "ACCESS" is the way MOTOR VEHICLES move between a STREET or ALLEY and the principal USE or STRUCTURE on a LOT abutting such STREET or ALLEY.
    - (2) "BEST PRIME FARMLAND" is Prime Farmland Soils identified in the Champaign County Land Evaluation and Site Assessment (LESA) System that under optimum management have 91% to 100% of the highest soil productivities in Champaign County, on average, as reported in the *Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils*. Best Prime Farmland consists of the following:
      - a. Soils identified as Agriculture Value Groups 1, 2, 3 and/or 4 in the Champaign County LESA system;
      - b. Soils that, in combination on a subject site, have an average LE of 91 or higher, as determined by the Champaign County LESA system;
      - c. Any development site that includes a significant amount (10% or more of the area proposed to be developed) of Agriculture Value Groups 1, 2, 3 and/or 4 soils as determined by the Champaign County LESA system.
    - (3) "DWELLING OR PRINCIPAL BUILDING, PARTICIPATING" is a DWELLING on land that is leased to a WIND FARM or a PV SOLAR FARM.
    - (4) "DWELLING OR PRINCIPAL BUILDING, NON- PARTICIPATING" is a DWELLING on land that is not leased to a WIND FARM or a PV SOLAR FARM.
    - (5) "FRONTAGE" is that portion of a LOT abutting a STREET or ALLEY.
    - (6) "LOT" is a designated parcel, tract or area of land established by PLAT, SUBDIVISION or as otherwise permitted by law, to be used, developed or built upon as a unit.
    - (7) "LOT LINE, FRONT" is a line dividing a LOT from a STREET or easement of ACCESS. On a CORNER LOT or a LOT otherwise abutting more than one STREET or easement of ACCESS only one such LOT LINE shall be deemed the FRONT LOT LINE.
    - (8) "LOT LINE, REAR" is any LOT LINE which is generally opposite and parallel to the FRONT LOT LINE or to a tangent to the midpoint of the FRONT LOT LINE. In

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the case of a triangular or gore shaped LOT or where the LOT comes to a point opposite the FRONT LOT LINE it shall mean a line within the LOT 10 feet long and parallel to and at the maximum distance from the FRONT LOT LINE or said tangent.

- (9) "LOT LINES" are the lines bounding a LOT.
- (10) "NON-ADAPTABLE STRUCTURE" is any STRUCTURE or physical alteration to the land which requires a SPECIAL USE permit, and which is likely to become economically unfeasible to remove or put to an alternate USE allowable in the DISTRICT (by right or by SPECIAL USE).
- (11) "NOXIOUS WEEDS" are any of several plants designated pursuant to the Illinois Noxious Weed Law (505 ILCS 100/1 et seq.) and that are identified in 8 Illinois Administrative Code 220.
- (12) "PHOTOVOLTAIC (PV)" is a type of solar energy system that produces electricity by the use of photovoltaic cells that generate electricity when struck by light.
- (13) "PV SOLAR FARM" is a unified development intended to convert sunlight into electricity by photovoltaic (PV) devices for the primary purpose of wholesale sales of generated electricity. A PV SOLAR FARM is under a common ownership and operating control even though parts of the PV SOLAR FARM may be located on land leased from different owners. A PV SOLAR FARM includes all necessary components including access driveways, solar devices, electrical inverter(s), electrical transformer(s), cabling, a common switching station, maintenance and management facilities, and waterwells. PV SOLAR FARM should be understood to include COMMUNITY PV SOLAR FARM unless specified otherwise in the relevant section or paragraph.
- (14) "PV SOLAR FARM, COMMUNITY" is a PV SOLAR FARM of not more than 2,000 kilowatt nameplate capacity that meets the requirements of 20 ILCS 3855/1-10 for a "community renewable generation project" and provided that two COMMUNITY PV SOLAR FARMS may be co-located on the same or contiguous parcels as either a) two 2-MW projects on one parcel, or b) one 2-MW project on each of two contiguous parcels, as authorized by the Illinois Commerce Commission in Final Order 17-0838 on April 3, 2018.
- (15) "PRIVATE ACCESSWAY" is a service way providing ACCESS to one or more LOTS which has not been dedicated to the public.
- (16) "PRIVATE WAIVER" is a written statement asserting that a landowner has agreed to waive a specific WIND FARM or PV SOLAR FARM standard condition and has knowingly agreed to accept the consequences of the waiver. A PRIVATE WAIVER must be signed by the landowner.
- (17) "RIGHT-OF-WAY" is the entire dedicated tract or strip of land that is to be used by the public for circulation and service.

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### PRELIMINARY DRAFT

- (18) "SCREEN" is a STRUCTURE or landscaping element of sufficient opaqueness or density and maintained such that it completely obscures from view throughout its height the PREMISES upon which the screen is located.
- (19) "SCREEN PLANTING" is a vegetative material of sufficient height and density to filter adequately from view, in adjoining DISTRICTS, STRUCTURES, and USES on the PREMISES upon which the SCREEN PLANTING is located.
- (20) "SETBACK LINE" is the BUILDING RESTRICTION LINE nearest the front of and across a LOT establishing the minimum distance to be provided between a line of a STRUCTURE located on said LOT and the nearest STREET RIGHT-OF-WAY line.
- (21) "SPECIAL CONDITION" is a condition for the establishment of a SPECIAL USE.
- (22) "SPECIAL USE" is a USE which may be permitted in a DISTRICT pursuant to, and in compliance with, procedures specified herein.
- (23) "STREET" is a thoroughfare dedicated to the public within a RIGHT-OF-WAY which affords the principal means of ACCESS to abutting PROPERTY. A STREET may be designated as an avenue, a boulevard, a drive, a highway, a lane, a parkway, a place, a road, a thoroughfare, or by other appropriate names. STREETS are identified on the Official Zoning Map according to type of USE, and generally as follows:

(a) MAJOR STREET: Federal or State highways.

- (b) COLLECTOR STREET: COUNTY highways and urban arterial STREETS.(c) MINOR STREET: Township roads and other local roads.
- (24) WELL SUITED OVERALL: A discretionary review performance standard to describe the site on which a development is proposed. A site may be found to be WELL SUITED OVERALL if the site meets these criteria:
  - a. The site is one on which the proposed development can be safely and soundly accommodated using simple engineering and common, easily maintained construction methods with no unacceptable negative effects on neighbors or the general public; and
  - b. The site is reasonably well-suited in all respects and has no major defects.
- C. Section 5.2 only authorizes a "PV SOLAR FARM" in the AG-1 or AG-2 Zoning Districts and requires a Special Use Permit authorized by the County Board.
- D. Paragraph 6.1.2 A. indicates that all Special Use Permits with exterior lighting shall be required to minimize glare on adjacent properties and roadways by the following means:
  - (1) All exterior light fixtures shall be full-cutoff type lighting fixtures and shall be located and installed so as to minimize glare and light trespass. Full cutoff means that the lighting fixture emits no light above the horizontal plane.
  - (2) No lamp shall be greater than 250 watts and the Board may require smaller lamps when necessary.

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- (3) Locations and numbers of fixtures shall be indicated on the site plan (including floor plans and building elevations) approved by the Board.
- (4) The Board may also require conditions regarding the hours of operation and other conditions for outdoor recreational uses and other large outdoor lighting installations.
- (5) The Zoning Administrator shall not approve a Zoning Use Permit without the manufacturer's documentation of the full-cutoff feature for all exterior light fixtures.
- E. Section 6.1.5 contains the standard conditions for any PV SOLAR FARM which are as follows (capitalized words are defined in the Ordinance):
  - (1) Requirements for what must be included in the area of the PV SOLAR FARM are in 6.1.5 B.(1).
  - (2) Requirements for where a PV SOLAR FARM cannot be located are in 6.1.5 B.(2).
  - (3) Paragraph 6.1.5 C. eliminates LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, and maximum LOT COVERAGE requirements from applying to a PV SOLAR FARM.
  - (4) Paragraph 6.1.5 D. contains minimum separations for PV SOLAR FARMS from adjacent USES and STRUCTURES.
  - (5) Paragraph 6.1.5 E. contains standard conditions for the design and installation of PV SOLAR FARMS.
  - (6) Paragraph 6.1.5 F. contains standard conditions to mitigate damage to farmland.
  - (7) Paragraph 6.1.5 G. contains standard conditions for use of public streets.
  - (8) Paragraph 6.1.5 H. contains standard conditions for coordination with local fire protection districts.
  - (9) Paragraph 6.1.5 I. contains standard conditions for the allowable noise level.
  - (10) Paragraph 6.1.5 J. contains standard conditions for endangered species consultation.
  - (11) Paragraph 6.1.5 K. contains standard conditions for historic and archaeological resources review.
  - (12) Paragraph 6.1.5 L. contains standard conditions for acceptable wildlife impacts from PV SOLAR FARM construction and ongoing operations.
  - (13) Paragraph 6.1.5 M. contains standard conditions for screening and fencing of PV SOLAR FARMS.
  - (14) Paragraph 6.1.5 N. contains standard conditions to minimize glare from PV SOLAR FARMS.

- (15) Paragraph 6.1.5 O. contains standard conditions for liability insurance.
- (16) Paragraph 6.1.5 P. contains other standard conditions for operation of PV SOLAR FARMS.
- (17) Paragraph 6.1.5 Q. contains standard conditions for a decommissioning plan and site reclamation agreement for PV SOLAR FARMS and modifies the basic site reclamation requirements in paragraph 6.1.1 A.
- (18) Paragraph 6.1.5 R. contains standard conditions for securing an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- (19) Paragraph 6.1.5 S. contains standard conditions for a complaint hotline for complaints related to PV SOLAR FARM construction and ongoing operations.
- (20) Paragraph 6.1.5 T. contains the standard condition for expiration of the PV SOLAR FARM County Board Special Use Permit.
- (21) Paragraph 6.1.5 U. contains standard conditions establishing additional requirements for application for a PV SOLAR FARM County Board Special Use Permit that supplement the basic requirements for a special use permit application.
- F. Section 9.1.11 requires that a Special Use Permit shall not be granted by the Zoning Board of Appeals unless the public hearing record and written application demonstrate the following:
  - (1) That the Special Use is necessary for the public convenience at that location;
  - (2) That the Special Use is so designed, located, and proposed as to be operated so that it will not be injurious to the DISTRICT in which it shall be located or otherwise detrimental to the public welfare except that in the CR, AG-1, and AG-2 DISTRICTS the following additional criteria shall apply:
    - a. The property is either BEST PRIME FARMLAND and the property with proposed improvements in WELL SUITED OVERALL or the property is not BEST PRIME FARMLAND and the property with proposed improvements is SUITED OVERALL.
    - b. The existing public services are available to support the proposed SPECIAL USE effectively and safely without undue public expense.
    - c. The existing public infrastructure together with proposed improvements is adequate to support the proposed development effectively and safely without undue public expense.
  - (3) That the Special Use conforms to the applicable regulations and standards of and preserves the essential character of the DISTRICT in which it shall be located, except where such regulations and standards are modified by Section 6.
  - (4) That the Special Use is in harmony with the general purpose and intent of this ordinance.

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- (5) That in the case of an existing NONCONFORMING USE, it will make such USE more compatible with its surroundings.
- G. Paragraph 9.1.11.D.1. states that a proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Regarding standard conditions:
  - (1) The Ordinance requires that a waiver of a standard condition requires the following findings:
    - a. that the waiver is in accordance with the general purpose and intent of the ordinance; and
    - b. that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.
  - (2) However, a waiver of a standard condition is the same thing as a variance and Illinois law (55ILCS/ 5-12009) requires that a variance can only be granted in accordance with general or specific rules contained in the Zoning Ordinance and the VARIANCE criteria in paragraph 9.1.9 C. include the following in addition to criteria that are identical to those required for a waiver:
    - a. Special conditions and circumstances exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.
    - b. Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied will prevent reasonable or otherwise permitted use of the land or structure or construction
    - c. The special conditions, circumstances, hardships, or practical difficulties do not result from actions of the applicant.
  - (3) Including findings based on all of the criteria that are required for a VARIANCE for any waiver of a standard condition will eliminate any concern related to the adequacy of the required findings for a waiver of a standard condition and will still provide the efficiency of not requiring a public hearing for a VARIANCE, which was the original reason for adding waivers of standard conditions to the Ordinance.
- H. Paragraph 9.1.11.D.2. states that in granting any SPECIAL USE permit, the BOARD may prescribe SPECIAL CONDITIONS as to appropriate conditions and safeguards in conformity with the Ordinance. Violation of such SPECIAL CONDITIONS when made a party of the terms under which the SPECIAL USE permit is granted, shall be deemed a violation of this Ordinance and punishable under this Ordinance.

## GENERALLY REGARDING WHETHER THE SPECIAL USE IS NECESSARY FOR THE PUBLIC CONVENIENCE AT THIS LOCATION

7. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use is necessary for the public convenience at this location:

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  - The Petitioner has testified on the application, "The proposed solar project is situated A. within a predominantly rural, agricultural area of Champaign County, IL. Allowing this property to be developed into a solar facility will provide 4.5 MWs of clean, renewable energy to the local electrical grid. In addition, this project will help generate additional income for the landowner, contribute to job creation stimulation through new investments in energy efficiency, renewables, and innovation, and also help preserve the State of Illinois' low energy rates for residents and businesses within the County. The proposed Project would be situated on land that is adequately set back from surrounding residential areas. Because there are no significant traffic impacts associated with the construction and maintenance of the solar farm and no dangerous or hazardous chemicals contained within the PV modules, there are no anticipated effects to public health, safety, comfort, convenience, morals, or general welfare to the citizens of Urbana. Due to the location of the Project Area and relatively small size of the proposed solar project (4.5MW AC), traffic impacts are expected to be minimal. Once constructed, traffic conditions on site will be limited to approximately one utility vehicle per month accessing the site for maintenance purposes."
  - B. The State of Illinois has adopted a Renewable Portfolio Standard that established a goal of 25% of the State's energy coming from renewable sources by the year 2025.
  - C. The Illinois Future Energy Jobs Act requires installation of 3,000 MW of new solar capacity by the year 2030.

## GENERALLY REGARDING WHETHER THE SPECIAL USE WILL BE INJURIOUS TO THE DISTRICT OR OTHERWISE INJURIOUS TO THE PUBLIC WELFARE

- 8. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use be designed, located, and operated so that it will not be injurious to the District in which it shall be located, or otherwise detrimental to the public welfare:
  - The Petitioner has testified on the application, "The proposed Project would be situated A. on rural agricultural land, located away from public areas. The entire Project Premises will be contained within a six-foot tall chain link fence with a locked access gate in order to prevent trespassing. In addition, warning signage will be clearly posted at the ingress/egress point of the Project Premises and will contain emergency contact information and the 911 address. Furthermore, vegetation within the Project Premises will be regularly maintained to prevent any increase in fire hazard to the Project Premises and adjacent areas. Because there are no significant traffic impacts associated with the construction and maintenance of the solar farm and no dangerous or hazardous chemicals contained within the PV modules, there are no anticipated effects to public health, safety, comfort, convenience, morals, or general welfare to the citizens of the County. The existence of this solar Project is not expected to affect the value of land and buildings surrounding the Project Premises. According to the National Renewable Energy Laboratory, once constructed, solar projects require little maintenance and no on-site employees. FFP IL Community Solar, LLC intends on utilizing PV modules for this system which use a nonreflective glass and are designed to absorb light rather than reflect it, thus reducing glint and glare to adjacent roadways and residences. Furthermore, the noisiest components of the solar

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farms are the inverters, which generate a low buzzing sound as they convert electricity from direct current to alternating current. This noise is generally not audible above ambient noise outside of the perimeter fence."

- B. Regarding surface drainage, the PV SOLAR FARM fenced area generally drains toward the east.
- C. Regarding traffic in the subject property area:
  - (1) The proposed solar farm would have one access on East Windsor Road. Although the subject property also fronts High Cross Road/IL 130, there would be no access there.
  - (2) East Windsor Road is a five-lane urban arterial. High Cross Road/IL 130 is a threelane urban arterial.
  - (3) The Illinois Department of Transportation measures traffic on various roads throughout the County and determines the annual average 24-hour traffic volume for those roads and reports it as Average Daily Traffic (ADT). The most recent ADT data is from 2021 near the subject property. Windsor Road had an ADT of 6,150 and High Cross Road/IL 130 had an ADT of 6,000 near the subject property.
  - (4) No significant increase in traffic is expected except during construction of the PV SOLAR FARM.
  - (5) The City of Urbana, IDOT, and Urbana Township Highway Commissioners have been notified of this case.
    - a. Urbana Township does not have maintenance jurisdiction over the adjacent roads.
    - b. In an email received January 9, 2024, Kevin Garcia with the City of Urbana said the City has no issue with plans to develop these sites as solar farms.
  - (6) No information was received regarding a Roadway Upgrade and Maintenance Agreement or waiver therefrom from the City of Urbana. The Zoning Ordinance does not require an agreement with IDOT.
- D. Regarding fire protection:
  - (1) The subject property is approximately 5.7 road miles from the Philo fire station.
  - (2) The petitioners sent the Site Plan to the Philo Fire Protection Chief via email on December 21, 2023. No response was received as of January 10, 2024.
  - (3) The Philo Fire Protection District was notified of this case and no comments have been received.
- E. No part of the subject property is located within a Special Flood Hazard Area.
- F. The subject property is considered Best Prime Farmland. The Natural Resource Information Report received November 28, 2023, states that the soil on the subject

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property consists of 152A Drummer silty clay loam, 171B Catlin silt Loam, 330A Peotone silty clay loam, and 663B Clare silt loam and has an average Land Evaluation score of 97.

- G. Regarding outdoor lighting on the subject property, the application received December 15, 2023, states "One motion-sensing security light will be installed at the entrance gate of the Project Premises. The security light will be shielded and downcast to minimize disturbance to the adjacent properties. The lighting will be designed and sited to avoid any light from spilling onto any adjacent property." A special condition has been added to ensure compliance for any future outdoor lighting installation.
- H. Regarding wastewater treatment and disposal on the subject property, there is no wastewater treatment and disposal required or planned for the proposed PV SOLAR FARM.
- I. Regarding parking, there is no required parking for the proposed PV SOLAR FARM.
- J. Other than as reviewed elsewhere in this Summary of Evidence, there is no evidence to suggest that the proposed Special Use will generate either nuisance conditions such as odor, noise, vibration, glare, heat, dust, electromagnetic fields or public safety hazards such as fire, explosion, or toxic materials release, that are in excess of those lawfully permitted and customarily associated with other uses permitted in the zoning district.

#### GENERALLY REGARDING WHETHER THE SPECIAL USE CONFORMS TO APPLICABLE REGULATIONS AND STANDARDS AND PRESERVES THE ESSENTIAL CHARACTER OF THE DISTRICT

- 9. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use conforms to all applicable regulations and standards and preserves the essential character of the District in which it shall be located, except where such regulations and standards are modified by Section 6 of the Ordinance:
  - A. The Petitioner has testified on the application, "Solar is an approved use with a Special Use Permit under the County Zoning Ordinance. FFP IL Community Solar, LLC will comply with all ordinances, requirements, and regulations set forth by Champaign County and will obtain all required local and state permits."
  - B. Regarding compliance with the *Zoning Ordinance*, the following evidence was provided:
    - (1) Section 5.2 authorizes a PV SOLAR FARM only by a County Board Special Use Permit in the AG-1 and AG-2 Agriculture Zoning Districts. It is not permitted by right in any district.
    - (2) There is no required parking.
    - (3) Requirements for what must be included in the area of the PV SOLAR FARM Special Use Permit are in subparagraph 6.1.5 B.(1).
      - a. The revised Site Plan received January 10, 2024 appears to conform to this requirement.
    - (4) Requirements which identify certain areas where a PV SOLAR FARM Special Use Permit shall not be located can be found in Subparagraph 6.1.5 B.(2).

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- a. Item 6.1.5 B.(2)a. requires a PV SOLAR FARM to be more than one and one half miles from an incorporated municipality with a zoning ordinance, unless the following is provided:
  - (a) No part of a PV SOLAR FARM shall be located within a contiguous urban growth area (CUGA) as indicated in the most recent update of the CUGA in the Champaign County Land Resource Management Plan, and there shall be a separation of one-half mile from a proposed PV SOLAR FARM to a municipal boundary at the time of application for the SPECIAL USE Permit, except for any power lines of 34.5 kVA or less and except for any proposed PV SOLAR FARM substation and related proposed connection to an existing substation.
    - i. The subject property is adjacent to the City of Urbana, a municipality with zoning. The PV Solar Farm will be located within the CUGA. A waiver has been added.
  - (b) The PV SOLAR FARM SPECIAL USE permit application shall include documentation that the applicant has provided a complete copy of the SPECIAL USE permit application to any municipality within one-and-one-half miles of the proposed PV SOLAR FARM.
    - i. The petitioner sent an email to the City of Urbana on December 8, 2023 which included the Special Use Permit application.
    - ii. In an email received January 9, 2024, Kevin Garcia with the City of Urbana said the City has no issue with plans to develop these sites as solar farms.
  - (c) The public hearing for any proposed PV SOLAR FARM that is located within one and one-half miles of a municipality that has a zoning ordinance shall occur at a minimum of two Board meetings that are not less than 28 days apart to provide time for municipal comments during the public hearing, unless the 28-day comment period is waived in writing by any relevant municipality.
    - i. In an email received January 9, 2024, Kevin Garcia with the City of Urbana waived the required for the County to hold two meetings on Cases 126-S-23 and 127-S-23.
  - (d) If no municipal resolution regarding the PV SOLAR FARM is received from any municipality located within one-and-one-half miles of the PV SOLAR FARM prior to the consideration of the PV SOLAR FARM SPECIAL USE permit by the Champaign County Board, the ZONING ADMINISTRATOR shall provide documentation to the County Board that any municipality within one-and-one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the County Board.

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- Notice of the January 25, 2024, ZBA public hearing was sent by P&Z Staff to the City of Urbana on January 10, 2024. City of Urbana staff were also notified of the receipt of the project application on December 20, 2023 by email.
- ii. No resolution from the City of Urbana has been received as of January 17, 2024.
- (5) Requirements regarding interconnection to the power grid can be found in Subparagraph 6.1.5 B.(3):
  - a. The utility interconnection application must be applied for with the relevant utility and documentation provided at the time of Special Use Permit application.
    - (a) The petitioner included an interconnection application with their Special Use Permit application received December 15, 2023.
  - b. Documentation must be provided that the utility has accepted the application for the PV SOLAR FARM prior to issuance of the Zoning Compliance Certificate.
- (6) Requirements regarding Right to Farm can be found in Subparagraph 6.1.5 B.(4): "The owners of the subject property and the Applicant, its successors in interest, and all parties to the decommissioning plan and site reclamation plan hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425."
  - a. A special condition has been added to ensure compliance.
- (7) Requirements regarding minimum lot standards can be found in Subparagraph 6.1.5 C.:
  - a. Subparagraph 6.1.5 C. eliminates LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, maximum LOT COVERAGE, or maximum LOT AREA requirements on BEST PRIME FARMLAND requirements for a PV SOLAR FARM or for LOTS for PV SOLAR FARM substations and/ or PV SOLAR FARM maintenance and management facilities.
- (8) Requirements regarding minimum separations for PV SOLAR FARMS from other STRUCTURES, BUILDINGS, and USES can be found in Subparagraph 6.1.5 D.
  - a. The revised Site Plan received January 10, 2024 shows the separations between the solar farm fence and adjacent buildings and uses.
  - b. The proposed PV SOLAR FARM complies with all minimum separations in paragraph 6.1.5 D. in the following manner:
    - (a) Subparagraph 6.1.5 D.(1) requires PV SOLAR FARM fencing to be set back from the street centerline a minimum of 40 feet from a MINOR STREET and a minimum of 55 feet from a COLLECTOR STREET and a minimum of 60 feet from a MAJOR STREET unless a greater separation is required for screening pursuant to Section

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6.1.5 M.(2)a., but in no case shall the perimeter fencing be less than 10 feet from the RIGHT OF WAY of any STREET.

- i. The Site Plan received January 10, 2024 demonstrates compliance with the 55 feet setback from the centerline of Windsor Road, which is a COLLECTOR STREET. It also demonstrates compliance with the 60 feet setback from the centerline of IL 130/High Cross Road, which is a MAJOR STREET.
- ii. Public Act 102-1123 requires a distance of 50 feet from the PV SOLAR FARM fence to the nearest edge of a public road RIGHT-OF-WAY.
  - The proposed distance complies with the Zoning Ordinance. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
- (b) Subparagraph 6.1.5 D.(2) states that for properties participating in the solar farm, there is no required separation from any existing DWELLING or existing PRINCIPAL BUILDING except as required to ensure that a minimum zoning lot is provided for the existing DWELLING or PRINCIPAL BUILDING.
   a. The subject properties meet minimum zoning lot requirements.
- (c) Subparagraph 6.1.5 D.(3)a. states that for any adjacent LOT that is 10
  - acres or less in area (not including the STREET RIGHT OF WAY):
    i. For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on no more than two sides by the PV SOLAR FARM, the separation shall be no less than 240
    - feet from the property line.
      (i) There is an adjacent lot to the northwest that is 10 acres or less in lot area. There are adjacent lots on the north side of Windsor Road that are 10 acres or less in lot area. The revised Site Plan received January 10, 2024 does not demonstrate compliance with the 240 foot required separation between the PV SOLAR FARM fence and those property lines. A waiver has been added.
    - Public Act 102-1123 only requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property. The revised Site Plan received January 10, 2024 demonstrates compliance with Public Act 102-1123.
  - ii. For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on more than two sides by the

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PV SOLAR FARM, the separation shall exceed 240 feet as deemed necessary by the BOARD.

- (i) There are no lots that are 10 acres or less in lot area adjacent to the subject property that are bordered on more than two sides by the PV SOLAR FARM.
- Public Act 102-1123 requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
- (d) Subparagraph 6.1.5 D.(3)b. states that for any adjacent LOT that is more than 10 acres in area (not including the STREET RIGHT OF WAY), the separation shall be no less than 255 feet from any existing DWELLING or existing PRINCIPAL BUILDING and otherwise the perimeter fencing shall be a minimum of 10 feet from a SIDE or REAR LOT LINE. This separation distance applies to properties that are adjacent to or across a STREET from a PV SOLAR FARM.
  - i. The perimeter fencing of the PV SOLAR FARM is at least 10 feet away from any SIDE or REAR LOT LINE of an adjacent LOT that is more than 10 acres in area.
  - ii. Public Act 102-1123 requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property. The proposed distance complies with the Zoning Ordinance. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
- (e) Subparagraph 6.1.5 D.(3)c. states that additional separation may be required to ensure that the noise level required by 35 Ill. Admin. Code Parts 900, 901 and 910 is not exceeded or for other purposes deemed necessary by the BOARD.
  - i. There are no proposed additional separations at this time.
- (f) Subparagraph 6.1.5 D.(4) states that there must be a separation of at least 500 feet from specific types of airport and restricted landing area facilities unless the SPECIAL USE permit application includes results provided from an analysis using the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, Federal Aviation Administration (FAA) Review of Solar Energy Projects on Federally Obligated Airports, or the most recent version adopted by the FAA, and the SGHAT results show no detrimental affect with less than a 500 feet separation.

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- i. There is no AIRPORT or RESTRICTED LANDING AREA within 500 feet of the subject property.
- (g) Subparagraph 6.1.5 D.(5) requires a separation of at least 500 feet between substations and transmission lines of greater than 34.5 kVA to adjacent dwellings and residential DISTRICTS.
  - i. There are no new substations or transmission lines of greater than 34.5 kVA within 500 feet of adjacent dwellings or residential DISTRICTS.
- (h) Subparagraph 6.1.5 D.(6) states that electrical inverters shall be located as far as possible from property lines and adjacent DWELLINGS consistent with good engineering practice. Inverter locations that are less than 275 feet from the perimeter fence shall require specific approval and may require special sound deadening construction and noise analysis.
  - i. The inverters shown on the Site Plan received January 10, 2024 are 378 feet away from the PV SOLAR FARM perimeter fence.
  - Regarding the distance between the inverters and nearby lots with dwellings, based on the Site Plan received January 10, 2024:
    - (i) The inverters are located toward the center of the subject property. The distance between an inverter and the closest dwelling is 825 feet.
  - iii. Public Act 102-1123 does not have a separation requirement for inverters.
- Subparagraph 6.1.5 D.(7) states that separation distances for any PV
   SOLAR FARM with solar equipment exceeding 8 feet in height, with the exception of transmission lines which may be taller, shall be determined by the BOARD on a case-by-case basis.
  - i. The application stated that the arrays will not exceed 12 feet in height at maximum tilt.
  - ii. Public Act 102-1123 states that solar equipment can extend up to 20 feet above ground. Should the ZBA decide that additional separations are needed due to height, it could create compliance issue with Public Act 102-1123.
- (j) Subparagraph 6.1.5 D.(8) states that PV SOLAR FARM solar equipment other than inverters shall be no less than 26 feet from the property line of any lot more than 10 acres in area.
  - i. The revised Site Plan received January 10, 2024, shows that there is at least 26 feet of separation between the property line

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of any lot more than 10 acres in area and the PV SOLAR FARM equipment other than fencing.

- (9) Paragraph 6.1.5 E. contains standard conditions for the design and installation of PV SOLAR FARMS. Compliance with paragraph 6.1.5 E. can be summarized as follows:
  - a. Subparagraph 6.1.5 E.(1) requires certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer or other qualified professional that that the constructed building conforms to Public Act 96-704 regarding building code compliance and conforms to the Illinois Accessibility Code.
    - (a) The Special Use Permit application packet received December 15, 2023, does not include any buildings.
  - b. Subparagraph 6.1.5 E.(2) establishes minimum requirements for electrical components.
    - (a) Part 6.1.5 E.(2)a. states that all electrical components of the PV SOLAR FARM shall conform to the National Electrical Code as amended and shall comply with Federal Communications Commission (FCC) requirements.
      - i. The petitioner stated in their application materials, "The Project's facilities will be sited to comply with Champaign County setback requirements, where feasible, and will also comply with other local, state, and federal regulatory standards."
    - (b) Part 6.1.5 E.(2)b. states that burying power and communication wiring underground shall be minimized consistent with best management practice regarding PV solar farm construction and minimizing impacts on agricultural drainage tile.
      - i. The petitioner did not mention the depth of burying power and communication wiring in their application.
  - c. Subparagraph 6.1.5 E.(3) states that the height limitation established in Section 5.3 shall not apply to a PV SOLAR FARM, and requires the maximum height of all above ground STRUCTURES to be identified in the application and as approved in the SPECIAL USE permit.
    - (a) The petitioner indicated that all above ground structures would be less than twelve feet tall except for the utility poles.
  - d. Subparagraph 6.1.5 E.(4) requires that a reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
    - (a) The petitioner stated in the Special Use Permit application, "Visible warning signs shall be posted at each ingress/egress point associated with the Project. The Project emergency contact information and 911 address will be clearly posted on all warning signage."

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- e. Subparagraph 6.1.5 E.(5) requires that no PV SOLAR FARM construction may intrude on any easement or right of way for a GAS PIPELINE or HAZARDOUS LIQUID PIPELINE, an underground water main or sanitary sewer, a drainage district ditch or tile, or any other public utility facility unless specifically authorized by a crossing agreement that has been entered into with the relevant party.
  - (a) Drainage districts have been notified of the proposed project.
    - i. In an email received January 9, 2024, Byron Balbach, Attorney for both drainage districts in the subject property area, stated "no drainage facilities of either district are located within Site 1 or Site 2...you may need to consider storm water detention if your drainage off your project will increase beyond normal agricultural drainage."
  - (b) The subject property does not have a connection to public sewer or water.
  - (c) Champaign County Geographic Information Systems data does not show any gas or hazardous liquid lines on the subject property.
- Paragraph 6.1.5 F. contains standard conditions to mitigate damage to farmland.
   a. The subject property is considered Best Prime Farmland. The Natural Resource Information Report received November 28, 2023, states that the soil on the subject property consists of 152A Drummer silty clay loam, 171B Catlin silt Loam, 330A Peotone silty clay loam, and 663B Clare silt loam and has an average Land Evaluation score of 97.
  - b. The Applicant is required to sign an Agricultural Impact Mitigation Agreement, which would include requirements to mitigate damage to farmland per 505 ILCS 147/15(b). A special condition has been added to ensure compliance.
  - c. Regarding pollinator friendly ground cover in the mitigation of damage to farmland, the petitioner stated in their application materials received December 15, 2023, "The proposed Project may follow practices that: (1) provide native perennial vegetation and foraging habitat, which is beneficial to game birds, songbirds, and pollinators; and (2) reduce stormwater runoff and erosion at the solar site. To the extent practical, if establishing perennial vegetation and beneficial foraging habitat, the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds."
    - (a) A Vegetation Establishment and Management Plan was received on January 10, 2024.
  - d. Subparagraph 6.1.5 F.(1) establishes a minimum depth of 5 feet for underground wiring or cabling below grade or deeper if required to maintain a minimum one foot of clearance between the wire or cable and any agricultural drainage tile or a lesser depth if so authorized by the

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Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 R.

- (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that establishes the cable depths to be used.
- e. Subparagraph 6.1.5 F.(2) establishes requirements for protection of agricultural drainage tile.
  - (a) The petitioner provided a preliminary potential drain tile map.
  - (b) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that establishes rerouting and permanent repair of agricultural drainage tiles.
  - (c) In an email received January 9, 2024, Byron Balbach, Attorney for both drainage districts in the subject property area, stated "no drainage facilities of either district are located within Site 1 or Site 2...you may need to consider storm water detention if your drainage off your project will increase beyond normal agricultural drainage."
- f. Subparagraph 6.1.5 F.(3) requires restoration for any damage to soil conservation practices.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that states, "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."
- g. Subparagraph 6.1.5 F.(4) establishes requirements for topsoil replacement pursuant to any open trenching.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that details how topsoil is to be handled.
- h. Subparagraph 6.1.5 F.(5) establishes requirements for mitigation of soil compaction and rutting.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that details how the facility owner must mitigate compaction and rutting.
- i. Subparagraph 6.1.5 F.(6) establishes requirements for land leveling.

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- (a) The petitioner did not provide a response in the application materials.
- j. Subparagraph 6.1.5 F.(7) establishes requirements for a permanent Erosion and Sedimentation Control Plan.
  - (a) The Special Use Permit application received December 15, 2023 states, "A detailed Erosion Control Plan will be completed and submitted as a portion of the Building Permit for the site."
- k. Subparagraph 6.1.5 F.(8) establishes requirements for retention of all topsoil.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that details how topsoil will be handled.
- 1. Subparagraph 6.1.5 F.(9) establishes requirements for minimizing the disturbance to BEST PRIME FARMLAND by establishing a specific type of vegetative ground cover.
  - (a) A Vegetation Establishment and Management Plan was received on January 10, 2024.
- (11) Paragraph 6.1.5 G. contains standard conditions for use of public streets.
  - a. Paragraph 6.1.5 G.(1) requires the Applicant to enter into a signed Roadway Upgrade and Maintenance agreement approved by the County Engineer and State's Attorney and/or any relevant Township Highway Commissioner prior to the close of the public hearing for the use of public streets, except for any COMMUNITY PV SOLAR FARM for which the relevant highway authority has agreed in writing to waive the requirements, and the signed and executed Roadway Upgrade and Maintenance agreements must provide for certain conditions.
    - (a) The petitioner did not provide information on a Roadway Upgrade and Maintenance Agreement in their application. A waiver has been added to request this at a later time, and a special condition has been added to ensure compliance.
  - b. Paragraph 6.1.5 G.(2) requires that the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality where relevant, has approved a Transportation Impact Analysis provided by the Applicant and prepared by an independent engineer that is mutually acceptable to the Applicant and the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality.
    - (a) The petitioner did not provide information regarding a Transportation Impact Analysis in their application. A special condition has been added to ensure compliance.
  - c. Paragraph 6.1.5 G.(3) requires the Applicant or its successors in interest to enter into a Roadway Use and Repair Agreement with the appropriate highway authority for decommissioning the PV SOLAR FARM.

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- (a) No information was required or submitted for the Special Use Permit application.
- (12) Paragraph 6.1.5 H. contains standard conditions for coordination with local fire protection districts.
  - a. The subject property is approximately 5.7 road miles from the Philo fire station.
  - b. The petitioners sent the Site Plan to the Philo Fire Protection District on December 20, 2023 and no comments have been received as of January 10, 2024.
  - c. The Philo Fire Protection District was notified of this case and no comments have been received.
- (13) Paragraph 6.1.5 I. contains standard conditions for the allowable noise level.
  - a. Subparagraph 6.1.5 I.(1) requires the noise level from each PV SOLAR FARM to be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
    - (a) The petitioner stated in their application, "Noise levels will be in compliance with the Illinois Pollution Control Board regulations."
  - b. Subparagraph 6.1.5 I.(3)a. requires that a SPECIAL USE Permit application for other than a COMMUNITY PV SOLAR FARM shall include a noise analysis.
    - (a) The project size is considered to be a COMMUNITY PV SOLAR FARM and therefore a noise analysis is not required unless the ZBA requires one.
- (14) Paragraph 6.1.5 J. contains standard conditions for endangered species consultation. Regarding compliance with 6.1.5 J.:
  - a. The petitioner stated in their application, "Westwood conducted an IPaC coordination with the U.S. Fish and Wildlife Service (USFWS) (2023). The results of the effort identified six federally endangered, threatened, proposed, candidate, or Non-essential Experimental Population (NEP) species as potentially occurring within the Project Area or surrounding region."
  - b. The petitioner stated in their application, "On September 27, 2023, Westwood submitted an EcoCAT (IDNR 2023d) request to the Illinois Department of Natural Resources (IDNR) for information regarding statelisted threatened or endangered species (Appendix E). The request (IDNR #2405178) identified no records of state-listed threatened or endangered species within the Project Area and surrounding vicinity."
- (15) Paragraph 6.1.5 K. contains standard conditions for historic and archaeological resources review. Regarding compliance with 6.1.5 K.:

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- a. The petitioner stated in their application, "As a preliminary review of cultural resources in the Project Area, Westwood examined the Illinois Inventory of Archaeological Sites (IIAS) and the Historic and Architectural Resources Geographic Information System (HARGIS) maintained by the Illinois SHPO. An initial inventory of archaeological sites and historic structures was compiled. Previous surveys were also examined for insight into the cultural resource potential of the Project Area. Additionally, the National Register of Historic Places (NRHP) database was reviewed. The Project Area was examined, as well as a ¼-mile buffer. No previously recorded cultural resources are present in the Project Area or the ¼-mile buffer based on the review of available data in the IIAS and HARGIS. No NRHP listed properties or historic districts are present within the Project Area or the ¼-mile buffer. No previous cultural resources survey has been conducted within the Project Area."
- b. The petitioner did not provide a copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources. A special condition has been added to ensure compliance.
- (16) Paragraph 6.1.5 L. states: "The PV SOLAR FARM shall be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality."
  - a. The petitioner did not explain mitigating impacts to wildlife in their application.
- (17) Paragraph 6.1.5 M. contains standard conditions for screening and fencing.
   a. Subparagraph 6.1.5 M.(1) requires the PV SOLAR FARM to have perimeter fencing that is at least 7 feet tall, with Knox boxes and keys provided at locked entrances, and a vegetation management plan included in the application to control NOXIOUS WEEDS.
  - (a) The petitioner stated in their application, "The entire Project Premises will be surrounded by a seven-foot-tall standard chainlink fence."
  - (b) The petitioner stated in their application, "The Project will include a visible and lockable manual safety switch, which will be made accessible to first responders, the utility, and maintenance personnel via gate lockbox, code, or other method to be defined prior to construction."
  - (c) The petitioner stated in their application, "To the extent practical, if establishing perennial vegetation and beneficial foraging habitat, the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds."
    - i. A Vegetation Establishment and Management Plan was received on January 10, 2024 which includes information on control of noxious weeds.

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- b. Subparagraph 6.1.5 M.(2) requires a visual screen around the perimeter of the PV SOLAR FARM.
  - (a) Subparagraph 6.1.5 M.(2)a.(a) requires that a visual screen be provided for any part of the PV SOLAR FARM that is visible to and located within 1,000 feet of an existing DWELLING or residential DISTRICT.
    - i. The petitioner stated in their application, "Any part of the facility within 1,000 feet of any Non-Participating residence or Road right-of-way not screened by existing vegetation will be screened by a native scrub screening as shown in Exhibit 5."
    - ii. There are NON-PARTICIPATING residences within 1,000 feet to the northwest, northeast, and southeast.
      - (i) The Screening Plan received January 10, 2024 indicates screening on the northwest, northeast, and south.
- (18) Paragraph 6.1.5 N. contains standard conditions to minimize glare from the PV SOLAR FARM. Subparagraph 6.1.5 N.(1) requires that the design and construction of the PV SOLAR FARM shall minimize glare that may affect adjacent properties and the application shall include an explanation of how glare will be minimized.
  - a. The petitioner stated in the application, "The project will utilize Yaskawa Solectria XGI 1500-250/250-600 photovoltaic modules, which are constructed of anti-reflective coated tempered glass. In addition, the facility will be sited strategically to avoid glint and glare reflection towards adjacent roadways and surrounding areas."
- (19) Paragraph 6.1.5 O. contains standard conditions for the minimum liability insurance for the PV SOLAR FARM.
  - a. The petitioner did not provide insurance information in their application.
- (20) Paragraph 6.1.5 P. contains other standard conditions for operation of the PV SOLAR FARM.
  - a. Subparagraph 6.1.5 P.(1)c. states: "The Application shall explain methods and materials used to clean the PV SOLAR FARM equipment including an estimation of the daily and annual gallons of water used and the source of the water and the management of wastewater. The BOARD may request copies of well records from the Illinois State Water Survey and may require an estimate by a qualified hydrogeologist of the likely impact on adjacent waterwells."
    - (a) The petitioner did not provide information in their application.
  - b. Subparagraph 6.1.5 P.(3) states: "The PV SOLAR FARM SPECIAL USE permit application shall include a weed control plan for the total area of the SPECIAL USE permit including areas both inside of and outside of the perimeter fencing. The weed control plan shall ensure the control and/or

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eradication of NOXIOUS WEEDS consistent with the Illinois Noxious Weed Law (505 ILCS 100/1 et seq.). The weed control plan shall be explained in the application.

- (a) The Special Use Permit application received December 15, 2023 states, "the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds.
  - i. A Vegetation Establishment and Management Plan was received on January 10, 2024 which includes information on control of noxious weeds.
- (b) The Agricultural Impact Mitigation Agreement received with the application on December 15, 2023 contains information on weed control.
- (c) A special condition has been added to ensure compliance.
- c. All other requirements in Paragraph 6.1.5 P. do not have to be submitted as part of the Special Use Permit application; rather, they will be required during construction, operations, and/or decommissioning phases of the project.
- (21) Paragraph 6.1.5 Q. contains standard conditions for a Decommissioning and Site Reclamation Plan for the PV SOLAR FARM and modifies the basic site reclamation requirements in paragraph 6.1.1 A. Compliance with paragraph 6.1.5 Q. can be summarized as follows:
  - a. Subparagraph 6.1.5 Q.(1) of the Ordinance requires a signed Decommissioning and Site Reclamation Plan conforming to the requirements of paragraph 6.1.1 A. of the Ordinance and the remainder of 6.1.5 Q. of the Ordinance. Compliance with the requirements of paragraph 6.1.1 A. of the Ordinance are he summarized as follows:
    - 6.1.1 A. of the Ordinance can be summarized as follows: (a) Subparagraph 6.1.1 A.1. of the Ordinance requires the
    - (a) Subparagraph 6.1.1 A.1. of the Ordinance requires the petitioner to submit a Decommissioning and Site Reclamation Plan for consideration by the Board.
      - i. The petitioner included a signed Decommissioning and Site Reclamation Plan with their application received December 15, 2023.
      - ii. A revised DSRP was received on January 5, 2024.
    - (b) Subparagraph 6.1.1 A.2. of the Ordinance requires that the decommissioning and site reclamation plan shall be binding upon all successors of title, lessees, to any operator and/or owner of a NON-ADAPTABLE STRUCTURE, and to all parties to the decommissioning and site reclamation plan. Prior to the issuance of a SPECIAL USE Permit for such NON-ADAPTABLE STRUCTURES, the landowner or applicant shall also record a covenant incorporating the provisions of the decommissioning and site reclamation plan on the deed subject to the LOT, requiring that

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the reclamation work be performed and that a letter of credit be provided for financial assurance.

- i. The petitioner's Decommissioning and Site Reclamation Plan received January 5, 2024 states, "The Decommissioning Security will be in the form of an irrevocable letter of credit and an escrow account with the Champaign County Board as a beneficiary per Section 6.1.5 Q(4) of the Solar Ordinance. The County has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits, and the Applicant, its successors in interests, and all parties to decommissioning shall adjust the amount of financial assurance in escrow to ensure that it reflects current and accurate information."
- (c) Subparagraph 6.1.1 A.3. of the Ordinance requires that separate cost estimates for Section 6.1.1 A.4.a., 6.1.1 A.4.b., and 6.1.1 A.4.c. shall be provided by an Illinois Licensed Professional Engineer and are subject to approval of the BOARD.
  - i. The petitioner included cost estimates prepared by an Illinois Licensed Professional Engineer with their Decommissioning and Site Reclamation Plan received January 5, 2024.
- (d) Subparagraph 6.1.1 A.4.d. of the Ordinance requires the Decommissioning and Site Reclamation Plan to provide for provision and maintenance of a letter of credit, as set forth in Section 6.1.1 A.5.
  - i. The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to a Letter of Credit.
- (e) Subparagraph 6.1.1 A.5. of the Ordinance requires submission of an irrevocable letter of credit in the amount of 150% of the cost estimate required by 6.1.1 A.3 prior to issuance of a Zoning Use Permit.
  - i. No specifics were required or submitted regarding the Letter of Credit.
- (f) Subparagraph 6.1.1 A.6. of the Ordinance establishes a time period prior to the expiration of the irrevocable letter of credit during which the Zoning Administrator shall contact the landowner regarding the intent to renew the letter of credit and the landowner shall reply within a certain amount of time.
  - i. No specifics were required or submitted for the Special Use Permit application regarding this requirement.
- (g) Subparagraph 6.1.1 A.7. of the Ordinance establishes 5 factors to be considered in determining if a NON-ADAPTABLE structure (PV SOLAR FARM in this instance) is abandoned in place and 6.1.1 A.9. of the Ordinance establishes 7 conditions when the

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Zoning Administrator may draw upon the letter of credit and jointly these 12 circumstances comprise when the Zoning Administrator may draw upon the letter of credit.

- i. The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to these items.
- (h) All other requirements in Paragraph 6.1.5 Q.(1) do not have to be submitted as part of the Special Use Permit application; rather, they will be required during construction, operations, and/or decommissioning phases of the project.
- b. Subparagraph 6.1.5 Q.(2) of the Ordinance requires that in addition to the costs listed in subparagraph 6.1.1 A.4. of the Ordinance, the decommissioning and site reclamation plan shall also include provisions for anticipated repairs to any public STREET used for the purpose of reclamation of the PV SOLAR FARM and all costs related to removal of access driveways.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes removal of access roads should the landowner require and includes provisions for repairing public streets.
- c. Subparagraph 6.1.5 Q.(3) of the Ordinance requires the Decommissioning and Site Reclamation Plan to include additional information.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to 6.1.5 Q.(3).
- d. Subparagraph 6.1.5 Q.(4) of the Ordinance requires that the Applicant shall provide financial assurance in the form of an irrevocable letter of credit as required in paragraph 6.1.1 A.5. of the Ordinance. Regarding compliance with this subparagraph:
  - (a) The Letter of Credit must be supplied prior to receiving a Zoning Use Permit.
- e. Subparagraph 6.1.5 Q.(5) of the Ordinance states that in addition to the conditions listed in subparagraph 6.1.1 A.9. the Zoning Administrator may also draw on the funds for a myriad of reasons.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to 6.1.5 Q.(5).
- f. Subparagraph 6.1.5 Q.(6) of the Ordinance states that the Zoning Administrator may, but is not required to, deem the PV SOLAR FARM abandoned, or the standards set forth in Section 6.1.5 Q.(5) met, with respect to some, but not all, of the PV SOLAR FARM. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the PV SOLAR FARM only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining PV SOLAR FARM.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to 6.1.5 Q.(6).

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- g. Subparagraph 6.1.5 Q.(7) of the Ordinance states that the Decommissioning and Site Reclamation Plan shall be included as a condition of approval by the BOARD and the signed and executed irrevocable letter of credit must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval.
  - (a) A special condition has been added to ensure compliance.
- (22) Paragraph 6.1.5 R. contains standard conditions for securing an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
  - a. The petitioner stated in the application, "An Agricultural Impact Mitigation Agreement (Appendix F) has been signed by the applicant and has been submitted to the Illinois Department of Agriculture for signatures."
  - b. No information regarding this standard condition is required as part of the Special Use Permit application unless the Petitioner seeks a waiver of any part or all of this standard condition, and no waiver request has been received. A special condition has been added to ensure compliance.
- (23) Paragraph 6.1.5 S. contains standard conditions for a complaint hotline for complaints related to PV SOLAR FARM construction and ongoing operations.
  - a. No information regarding this standard condition is required as part of the Special Use Permit application unless the Petitioner seeks a waiver of any part or all of this standard condition, and no waiver request has been received. A special condition has been added to ensure compliance.
- (24) Paragraph 6.1.5 T. contains a standard condition stating that the PV SOLAR FARM County Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.
  - a. A special condition has been added to ensure compliance.
- (25) Paragraph 6.1.5 U. contains standard conditions establishing additional requirements for application for a PV SOLAR FARM County Board Special Use Permit that supplement the basic requirements for a special use permit application.
  - a. Subparagraph 6.1.5 U.(1)a. requires a PV SOLAR FARM Project Summary.
    - (a) A Project Description was included with the application received December 15, 2023.
  - b. Subparagraph 6.1.5 U.(1)b. requires the name(s), address(es), and phone number(s) of the Applicant(s), Owner and Operator, and all property owner(s) for the PV SOLAR FARM County Board SPECIAL USE permit.
    - (a) The application received December 15, 2023, demonstrates compliance with this requirement.
  - c. Subparagraph 6.1.5 U.(1)c. requires a site plan for the SOLAR FARM which includes the following:
    - (a) The approximate planned location of all PV SOLAR FARM STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout

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locations, access driveways, solar devices, electrical inverter(s), electrical transformer(s), cabling, switching station, electrical cabling from the PV SOLAR FARM to the Substations(s), ancillary equipment, screening and fencing, third party transmission lines, meteorological station, maintenance and management facilities, and layout of all structures within the geographical boundaries of any applicable setback.

- i. The revised Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (b) The site plan shall clearly indicate the area of the proposed PV SOLAR FARM County Board SPECIAL USE Permit as required by subparagraph 6.1.5 B.(1).
  - i. The revised Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (c) The location of all below-ground wiring.
  - i. The revised Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (d) The location, height, and appearance of all above-ground wiring and wiring structures.
  - i. The revised Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (e) The separation of all PV SOLAR FARM structures from adjacent DWELLINGS and/or PRINCIPAL BUILDINGS or uses shall be dimensioned on the approved site plan and that dimension shall establish the effective minimum separation that shall be required for any Zoning Use Permit. Greater separation and somewhat different locations may be provided in the approved site plan for the Zoning Use Permit provided that that the greater separation does not increase the noise impacts and/or glare that were approved in the PV SOLAR FARM County Board SPECIAL USE Permit. PV SOLAR FARM structures includes substations, third party transmission lines, maintenance and management facilities, or other significant structures.
  - i. The revised Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- d. Subparagraph 6.1.5 U.(1)d. requires submittal of all other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.
  - (a) Compliance with this subparagraph has been shown in previous sections of this Summary of Evidence.
- e. Subparagraph 6.1.5 U.(1)e. requires that the PV SOLAR FARM SPECIAL USE permit application shall include documentation that the applicant has

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provided a complete copy of the SPECIAL USE permit application to any municipality within one-and-one-half miles of the proposed PV SOLAR FARM as required by Section 6.1.5 B.(2)a.(b).

- (a) The Petitioner emailed a copy of the Special Use Permit application to the City of Urbana on December 8, 2023.
- f. Subparagraph 6.1.5 U.(1)f. requires that a municipal resolution regarding the PV SOLAR FARM by any municipality located within one-and-onehalf miles of the PV SOLAR FARM must be submitted to the ZONING ADMINISTRATOR prior to the consideration of the PV SOLAR FARM SPECIAL USE permit by the Champaign County Board or, in the absence of such a resolution, the ZONING ADMINISTRATOR shall provide documentation to the County Board that any municipality within one-andone-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the County Board as required by Section 6.1.5 B.(2)a.(c).
  - (a) Notice of the January 25, 2023 public hearing was sent by P&Z Staff to the City of Urbana on January 10, 2024. City of Urbana staff were also notified of the receipt of the project application on December 20, 2023 by email.
  - (b) No resolution from the City of Urbana has been received as of January 17, 2024.
- g. Subparagraph 6.1.5 U.(1)g. requires that documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM as required by Section 6.1.5 B.(3)b.
  - (a) The petitioner included an application for an interconnection agreement with their Special Use Permit application received December 15, 2023.
  - (b) A special condition has been added to ensure compliance.
- h. Subparagraph 6.1.5 U.(2) requires that the Applicant shall notify the COUNTY of any changes to the information provided above that occurs while the County Board SPECIAL USE permit application is pending.
  (a) No new information has been provided to date.
- i. Subparagraph 6.1.5 U.(2) requires that the Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction.
  - (a) A special condition has been added to ensure compliance.
- C. Regarding compliance with the *Storm Water Management and Erosion Control Ordinance*:

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- (1) The proposed Special Use is not exempt from the *Storm Water Management and Erosion Control Ordinance*. A Storm Water Drainage Plan and detention basin will be required if more than 16% of the subject property is impervious area, including gravel, buildings, and solar array rack posts.
- (2) Regarding the SWMEC requirement to protect agricultural field tile, see the review of compliance with paragraph 6.1.5 F. that contains standard conditions to mitigate damage to farmland.
- D. Regarding the Special Flood Hazard Areas Ordinance, no part of the subject property is located within a Special Flood Hazard Area.
- E. Regarding the Subdivision Regulations, the subject property is located in City of Urbana's subdivision jurisdiction and appears to be in compliance.
- F. Regarding the requirement that the Special Use preserve the essential character of the AG-2 Agriculture Zoning District:
  - (1) The proposed use is a PV SOLAR FARM that is consistent with the essential character of the AG-2 Agriculture District because it is only authorized in the AG-1 and AG-2 Districts.
- G. The proposed Special Use must comply with the Illinois Accessibility Code, which is not a County ordinance or policy and the County cannot provide any flexibility regarding that Code. A Zoning Use Permit cannot be issued for any part of the proposed Special Use until full compliance with the Illinois Accessibility Code has been indicated in drawings.

# GENERALLY REGARDING WHETHER THE SPECIAL USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE

- 10. Regarding the *Zoning Ordinance* requirement that the proposed Special Use is in harmony with the general intent and purpose of the Ordinance:
  - A. A PV SOLAR FARM may be authorized by the County Board in the AG-1 or AG-2 Agriculture Zoning Districts as a Special Use provided all other zoning requirements and standard conditions are met or waived.
    - (1) A proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Waivers of standard conditions are subject to the following findings:
      - a. that the waiver is in accordance with the general purpose and intent of the ordinance; and
      - b. that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.
  - B. See Section 15 for a summary of evidence regarding whether any requested waiver of standard conditions will be in harmony with the general intent and purpose of the Ordinance.

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- C. Regarding whether the proposed Special Use Permit is in harmony with the general intent of the Zoning Ordinance:
  - (1) Subsection 5.1.2 of the Ordinance states the general intent of the AG-2 District and states as follows (capitalized words are defined in the Ordinance):

The AG-2 Agriculture DISTRICT is intended to prevent scattered indiscriminate urban development and to preserve the AGRICULTURAL nature within areas which are predominately vacant and which presently do not demonstrate any significant potential for development. This DISTRICT is intended generally for application to areas within one and one-half miles of existing communities in the COUNTY.

- (2) The types of uses authorized in the AG-2 District are in fact the types of uses that have been determined to be acceptable in the AG-2 District. Uses authorized by Special Use Permit are acceptable uses in the districts provided that they are determined by the ZBA to meet the criteria for Special Use Permits established in paragraph 9.1.11 B. of the Ordinance.
- (3) Paragraph 2.0(a) of the Ordinance states that one purpose of the Ordinance is securing adequate light, pure air, and safety from fire and other dangers.

This purpose is directly related to the limits on building coverage and the minimum yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those requirements.

- (4) Paragraph 2.0(b) of the Ordinance states that one purpose of the Ordinance is conserving the value of land, BUILDINGS, and STRUCTURES throughout the COUNTY.
  - a. Regarding the value of nearby properties, it is not clear whether the proposed Special Use will have any impact on the value of nearby properties without a formal real estate appraisal, which has not been requested nor provided, and so any discussion of values is necessarily general.
  - b. Regarding the value of the subject property, it also is not clear if the requested Special Use Permit would have any effect.
    - (a) If the petitioner is denied the special use permit, the property can still be used for agricultural production.
  - c. Section 6.1.5 Q. of the PV SOLAR FARM text amendment approved on August 23, 2018, includes a standard condition requiring a Decommissioning and Site Reclamation Plan that is intended to ensure there is adequate financial assurance for removal of a PV SOLAR FARM at the end of its useful life. Ensuring adequate site reclamation is one method of protecting surrounding property values.
- (5) Paragraph 2.0(c) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding congestion in the public STREETS.

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Other than additional traffic during construction and/or decommissioning of the PV SOLAR FARM, no significant increase in traffic is anticipated.

- (6) Paragraph 2.0(d) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding the hazards to persons and damage to PROPERTY resulting from the accumulation of runoff from storm or flood waters.
  - a. The requested Special Use Permit is not in a Special Flood Hazard Area.
  - b. The proposed Special Use is not exempt from the *Storm Water Management and Erosion Control Ordinance*. A Storm Water Drainage Plan and detention basin will be required if more than 16% of the subject property is impervious area, including gravel, buildings, and solar array rack posts.
- (7) Paragraph 2.0(e) of the Ordinance states that one purpose of the Ordinance is promoting the public health, safety, comfort, morals, and general welfare.
  - a. In regards to public safety, this purpose is similar to the purpose established in paragraph 2.0 (a) and is in harmony to the same degree.
  - b. In regards to public comfort and general welfare, this purpose is similar to the purpose of conserving property values established in paragraph 2.0 (b) and is in harmony to the same degree.
- (8) Paragraph 2.0 (f) states that one purpose of the Ordinance is regulating and limiting the height and bulk of BUILDINGS and STRUCTURES hereafter to be erected; and paragraph 2.0 (g) states that one purpose is establishing, regulating, and limiting the BUILDING or SETBACK lines on or along any STREET, trafficway, drive or parkway; and paragraph 2.0 (h) states that one purpose is regulating and limiting the intensity of the USE of LOT AREAS, and regulating and determining the area of OPEN SPACES within and surrounding BUILDINGS and STRUCTURES.

These three purposes are directly related to the limits on building height and building coverage and the minimum setback and yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those limits.

(9) Paragraph 2.0(i) of the Ordinance states that one purpose of the Ordinance is classifying, regulating, and restricting the location of trades and industries and the location of BUILDINGS, STRUCTURES, and land designed for specified industrial, residential, and other land USES; and paragraph 2.0(j.) states that one purpose is dividing the entire COUNTY into DISTRICTS of such number, shape, area, and such different classes according to the USE of land, BUILDINGS, and STRUCTURES, intensity of the USE of LOT AREA, area of OPEN SPACES, and other classification as may be deemed best suited to carry out the purpose of the ordinance; and paragraph 2.0(k) states that one purpose is fixing regulations and standards to which BUILDINGS, STRUCTURES, or USES therein shall conform; and paragraph 2.0(l) states that one purpose is prohibiting USES, BUILDINGS, OR STRUCTURES incompatible with the character of such DISTRICT.

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	Harmony with these four purposes requires that the special conditions of approval sufficiently mitigate or minimize any incompatibilities between the proposed Special Use Permit and adjacent uses, and that the special conditions adequately mitigate nonconforming conditions.
(10)	Paragraph 2.0(m) of the Ordinance states that one purpose of the Ordinance is preventing additions to and alteration or remodeling of existing BUILDINGS, STRUCTURES, or USES in such a way as to avoid the restrictions and limitations lawfully imposed under this ordinance.
	This purpose is not relevant to the proposed Special Use Permit because it relates to nonconforming buildings, structures, or uses that existed on the date of the adoption of the Ordinance and no structures exist on the subject property.
(11)	Paragraph 2.0(n) of the Ordinance states that one purpose of the Ordinance is protecting the most productive AGRICULTURAL lands from haphazard and unplanned intrusions of urban USES.
	The subject property is located in the AG-2 Agriculture District and the proposed project is not an urban USE.
(12)	Paragraph 2.0(o) of the Ordinance states that one purpose of the Ordinance is protecting natural features such as forested areas and watercourses.

The petitioners requested a natural resource review from the Illinois Department of Natural Resources EcoCAT tool. The review identified no protected resources that might be in the vicinity of the proposed PV Solar Farm. No further action is required by IDNR regarding natural resources.

(13) Paragraph 2.0(p) of the Ordinance states that one purpose of the Ordinance is encouraging the compact development of urban areas to minimize the cost of development of public utilities and public transportation facilities.

The subject property is located in the AG-2 Agriculture District and does not require additional public utilities or transportation facilities.

(14) Paragraph 2.0(q) of the Ordinance states that one purpose of the Ordinance is encouraging the preservation of AGRICULTURAL belts surrounding urban areas, to retain the AGRICULTURAL nature of the COUNTY, and the individual character of existing communities.

The subject property is located in the AG-2 Agriculture District and a PV SOLAR FARM is typically located in a rural setting.

(15) Paragraph 2.0(r) of the Ordinance states that one purpose of the Ordinance is to provide for the safe and efficient development of renewable energy sources in those parts of the COUNTY that are most suited to their development.

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The entire project area is located in an Agriculture zoning district, which is the only zoning DISTRICT in which a PV SOLAR FARM is authorized.

## GENERALLY REGARDING WHETHER THE SPECIAL USE IS AN EXISTING NONCONFORMING USE

11. The proposed Special Use is not an existing NONCONFORMING USE.

#### RELATED TO THE WAIVERS, GENERALLY REGARDING SPECIAL CONDITIONS THAT MAY BE PRESENT

- 12. Generally regarding the Zoning Ordinance requirement of a finding that special conditions and circumstances exist which are peculiar to the land or structure involved which are not applicable to other similarly situated land or structures elsewhere in the same district:
  - A. Regarding Part A of the proposed waivers, for a separation distance of less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality:
    - (1) The City of Urbana is aware of the proposed project and in an email received January 9, 2024 from Kevin Garcia, they stated they have no issue with plans to develop these sites as solar farms.
  - B. Regarding Part B of the proposed waivers, for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet:
    - (1) The adjacent lot less than 10 acres is on the north side of Windsor Road and is vacant.
  - C. Regarding Part C of the proposed waivers, for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board:
    - (1) The petitioner is working with relevant jurisdictions to receive either an agreement or a waiver from this requirement.
    - (2) A special condition has been added requiring the applicant to submit a Roadway Upgrade and Maintenance Agreement or waiver therefrom and approved by ELUC at the time of application for a Zoning Use Permit.

#### RELATED TO THE WAIVERS, GENERALLY REGARDING ANY PRACTICAL DIFFICULTIES OR HARDSHIPS RELATED TO CARRYING OUT THE STRICT LETTER OF THE ORDINANCE

- 13. Generally regarding the Zoning Ordinance requirement of a finding that practical difficulties or hardships related to carrying out the strict letter of the regulations sought to be varied prevent reasonable and otherwise permitted use of the land or structures or construction on the lot:
  - A. Without Part A of the proposed waivers for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality, the PV SOLAR FARM could not be located on the subject property.
  - B. Without Part B of the proposed waivers for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet: the northernmost part of the PV SOLAR FARM would have to be moved south 195 feet, which could affect the feasibility of the project.

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C. Without Part C of the proposed waivers for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, the Special Use Permit process might have to be extended in order to have sufficient time to prepare these documents.

#### RELATED TO THE WAIVERS, GENERALLY PERTAINING TO WHETHER OR NOT THE PRACTICAL DIFFICULTIES OR HARDSHIPS RESULT FROM THE ACTIONS OF THE APPLICANT

- 14. Generally regarding the Zoning Ordinance requirement for a finding that the special conditions, circumstances, hardships, or practical difficulties do not result from the actions of the Applicant:
  - A. Regarding Part A of the proposed waivers for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality:
    - (1) The petitioners were made aware of this separation requirement when they applied for the Special Use Permit.
  - B. Regarding Part B of the proposed waivers, for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet:
    - (1) The petitioners were made aware of this requirement when they applied for the Special Use Permit.
  - C. Regarding Part C of the proposed waivers, for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board:
    - (1) The petitioner is working with relevant jurisdictions to receive either an agreement or a waiver from this requirement.

#### GENERALLY PERTAINING TO WHETHER OR NOT THE WAIVERS ARE IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE

- 15. Regarding the *Zoning Ordinance* requirement that the waivers of standard conditions of the Special Use will be in harmony with the general purpose and intent of the ordinance:
  - A. Regarding Part A of the proposed waivers, for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality, the requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
  - B. Regarding Part B of the proposed waivers, for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet: the requested waiver (variance) is 19% of the minimum required, for a variance of 81%.
  - C. Regarding Part C of the proposed waivers, entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board: the requested waiver (variance) is 0% of the minimum required, for a variance of 100%.

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#### RELATED TO THE WAIVERS, GENERALLY PERTAINING TO THE EFFECTS OF THE REQUESTED WAIVERS ON THE NEIGHBORHOOD AND THE PUBLIC HEALTH, SAFETY, AND WELFARE

- 16. Regarding the Zoning Ordinance requirement for a finding that the granting of the waiver (variance) will not be injurious to the neighborhood, or otherwise detrimental to the public health, safety, or welfare:
  - A. City of Urbana, IDOT, and Urbana Township have been notified of this case.
    - (1) In an email received January 9, 2024, Kevin Garcia with the City of Urbana said the City has no issue with plans to develop these sites as solar farms.
  - B. The Philo Fire Protection District has been notified of this case, and no comments have been received.
  - C. Drainage Districts have been notified of this case. The attorney for both Drainage Districts said there are no District tiles located onsite.
  - D. Considerations of public health, safety, and welfare for the proposed special use are discussed under Item 8 and are also applicable to the proposed waivers.

## GENERALLY REGARDING PROPOSED SPECIAL CONDITIONS OF APPROVAL

- 17. Regarding proposed special conditions of approval:
  - A. The approved site plan consists of the following documents:
    - Site Plan received January 10, 2024.

The special condition stated above is required to ensure the following: The constructed PV SOLAR FARM is consistent with the special use permit approval.

B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.

The special condition stated above is required to ensure the following: That exterior lighting for the proposed Special Use meets the requirements established for Special Uses in the Zoning Ordinance.

C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.

The special condition stated above is required to ensure the following: That the proposed Special Use meets applicable state requirements for accessibility.

D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement

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with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.

The special condition stated above is required to ensure the following: That the land affected by PV SOLAR FARM is restored to its preconstruction capabilities.

E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

The special condition stated above is required to ensure the following: The Special Use Permit complies with Ordinance requirements and as authorized by waiver.

F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.

The special condition stated above is required to ensure the following: **To ensure full compliance with the intent of the Zoning Ordinance in a timely manner that meets the needs of the applicant.** 

- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).

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- 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
- 7. The telephone number for the complaint hotline required by 6.1.5 S.
- 8. Any updates to the approved Site Plan from Case 126-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.
- 9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.

The special condition stated above is required to ensure the following:

The PV SOLAR FARM is constructed consistent with the Special Use Permit approval and in compliance with the Ordinance requirements.

- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:
  - 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
  - 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
  - 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.

The special condition stated above is required to ensure the following:

The PV SOLAR FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).
  - 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the

services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).

- 4. Maintain a current general liability policy as required by 6.1.5 O.
- 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
- 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.
- 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.

The special condition stated above is required to ensure the following: **Future requirements are clearly identified for all successors of title, lessees, any operator and/or owner of the PV SOLAR FARM.** 

J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed in compliance with the Ordinance requirements.

K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

The special condition stated above is required to ensure the following: Conformance with Policy 4.2.3 of the Land Resource Management Plan.

L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

The special condition stated above is required to ensure the following: That drainage district tiles are protected.

M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The special condition stated above is required to ensure the following: That the current version of the Zoning Ordinance has been referenced.

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# **DOCUMENTS OF RECORD**

- 1. Special Use Permit Application received December 15, 2023, with attachments:
  - A Site Plan
  - B Supplemental Application Information, including:
    - Project Description
    - Decommissioning and Site Reclamation Plan
    - Agricultural Impact Mitigation Agreement
    - Interconnection application
    - Exhibit 1: Project location and USGS topography
    - Exhibit 2: Water resources
    - Exhibit 3: Scenic and Conservation Areas
    - Exhibit 4: Drain Tile Location Map
    - Exhibit 5: Setbacks and Parcels
- 2. Natural Resource Report by the Champaign County Soil and Water Conservation District received November 28, 2023
- 3. Revised Site Plan received December 20, 2023
- 4. Email from Matthew Vollbrecht received January 5, 2024, with attachments:
  - Revised Screening Plan
  - Revised Decommissioning and Site Reclamation Plan received January 5, 2024
- 5. Email from Matthew Vollbrecht received January 9, 2024, with attachment:
  - Drainage District tile locations provided by Byron Balbach, Attorney for Silver Creek Drainage District and Drainage District #3 of the Town of St. Joseph
- 6. Email from Kevin Garcia, City of Urbana, received January 9, 2024
- 7. Email from Matthew Vollbrecht received January 9, 2024, with attachments:
  - Revised Site Plan
  - Vegetation Establishment and Management Plan
- 8. Preliminary Memorandum dated January 17, 2024, with attachments:
  - A Case Maps (Location Map, Land Use, and Zoning)
  - B1 Revised Site Plan Site 1 received January 10, 2024
  - B2 Revised Site Plan Site 2 received January 10, 2024
  - C Project Description received December 15, 2023
  - D Exhibits from Special Use Permit application received December 15, 2023
  - E Agricultural Impact Mitigation Agreement received December 15, 2023
  - F Interconnection application received December 15, 2023
  - G Inverter spec sheet downloaded December 20, 2023
  - H Solar Module spec sheet downloaded December 20, 2023
  - I1 Decommissioning and Site Reclamation Plan for Site 1 received January 5, 2024
  - I2 Decommissioning and Site Reclamation Plan for Site 2 received January 5, 2024
  - J Vegetation Establishment and Management Plan received January 10, 2024

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- K Email from Matthew Vollbrecht received January 9, 2024, with attachment:
  - Drainage District tile locations provided by Byron Balbach, Attorney for Silver Creek Drainage District and Drainage District #3 of the Town of St. Joseph
- L Email from Kevin Garcia, City of Urbana, received January 9, 2024
- M Natural Resource Report by the Champaign County Soil and Water Conservation District received November 28, 2023
- N Site visit images taken January 3, 2024
- O Case 126-S-23 Summary of Evidence, Summary Finding of Fact and Final Determination dated January 25, 2024
- P Case 127-S-23 Summary of Evidence, Summary Finding of Fact and Final Determination dated January 25, 2024

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# FINDINGS OF FACT

From the documents of record and the testimony and exhibits received at the public hearing for zoning case **126-S-23** held on **January 25, 2024**, the Zoning Board of Appeals of Champaign County finds that:

- 1. The requested Special Use Permit *{IS / IS NOT}* necessary for the public convenience at this location because:
  - a. The State of Illinois has adopted a Renewable Portfolio Standard that established a goal of 25% of the State's energy coming from renewable sources by the year 2025.
  - b. The Illinois Future Energy Jobs Act requires installation of 3,000 MW of new solar capacity by the year 2030.
- 2. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN}* is so designed, located, and proposed to be operated so that it *{WILL NOT / WILL}* be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare because:
  - a. The street has {*ADEQUATE / INADEQUATE*} traffic capacity and the entrance location has {*ADEQUATE / INADEQUATE*} visibility.
  - b. Emergency services availability is {ADEQUATE / INADEQUATE} {because\*}:
    - a. The subject property is approximately 5.7 miles from the Philo fire station.
    - b. The Philo Fire Protection District was notified of this case and no comments have been received.
  - c. The Special Use {WILL / WILL NOT} be compatible with adjacent uses {because\*}:
     a. The proposed project is surrounded by land in agricultural production to the west, east, and south and by a substation and vacant parcel that are within the City of Urbana to the north.
    - b. The nearest residence is about 262 feet from the PV SOLAR FARM fenced area.
  - d. Surface and subsurface drainage will be {ADEQUATE / INADEQUATE} {because\*}:
     a. No part of the subject property is in the Special Flood Hazard Area.
    - b. The proposed project must comply with the Storm Water Management and Erosion Control Ordinance.
  - e. Public safety will be {ADEQUATE / INADEQUATE} {because\*}:
    - a. Relevant jurisdictions were notified of this case, and no comments have been received.
  - f. The provisions for parking will be {ADEQUATE / INADEQUATE} {because\*}: a. No parking is required for a PV SOLAR FARM.
  - g. The property *{IS/IS NOT}* WELL SUITED OVERALL for the proposed improvements *{because\*}:* 
    - a. The site is reasonably well-suited in all respects and has no major defects.

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- h. Existing public services *{ARE/ARE NOT}* available to support the proposed SPECIAL USE without undue public expense *{because\*}*:
  - a. No additional public services are necessary for the proposed development.
- i. Existing public infrastructure together with the proposed development *{IS/IS NOT}* adequate to support the proposed development effectively and safely without undue public expense *{because\*}*:
  - a. No new public infrastructure is required for the proposed development.

(Note the Board may include other relevant considerations as necessary or desirable in each case.) \*The Board may include additional justification if desired, but it is not required.

- 3a. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}* conform to the applicable regulations and standards of the DISTRICT in which it is located, subject to approval of the requested waivers.
- 3b. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}* preserve the essential character of the DISTRICT in which it is located because:
  - a. The Special Use will be designed to *{CONFORM / NOT CONFORM}* to all relevant County ordinances and codes.
  - b. The Special Use *{WILL / WILL NOT}* be compatible with adjacent uses.
  - c. Public safety will be *{ADEQUATE / INADEQUATE}*.
- 4. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {IS / IS NOT}* in harmony with the general purpose and intent of the Ordinance because:
  - a. The Special Use is authorized in the District.
  - b. The requested Special Use Permit *{IS/ IS NOT}* necessary for the public convenience at this location.
  - c. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN}* is so designed, located, and proposed to be operated so that it *{WILL / WILL NOT}* be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare.
  - **d.** The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}* preserve the essential character of the DISTRICT in which it is located.
- 5. The requested Special Use **IS NOT** an existing nonconforming use.
- 6. Regarding necessary waivers of standard conditions:

Per Section 7.15 of the Champaign County ZBA Bylaws, "waivers may be approved individually or *en masse* by the affirmative vote of a majority of those members voting on the issue, and shall be incorporated into the Findings of Fact with the reason for granting each waiver described."

A. Regarding Part A of the proposed waivers, for locating the PV Solar Farm less than onehalf mile from an incorporated municipality and within the contiguous urban growth area of a municipality:

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- (1) The waiver *{IS/ IS NOT}* in accordance with the general purpose and intent of the Zoning Ordinance and *{WILL/ WILL NOT}* be injurious to the neighborhood or to the public health, safety, and welfare because:
  - a. The requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
  - b. Relevant jurisdictions have been notified of this case. The City of Urbana stated they have no issue with plans to develop these sites as solar farms.
  - c. Neighboring landowners have been notified of this case, and no comments have been received.
- (2) Special conditions and circumstances *{DO / DO NOT}* exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:
  - a. The City of Urbana is aware of the proposed project and in an email received January 9, 2024 from Kevin Garcia, they stated they have no issue with plans to develop these sites as solar farms.
- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied *{WILL / WILL NOT}* prevent reasonable or otherwise permitted use of the land or structure or construction because:
  - a. Without the proposed waiver, the PV SOLAR FARM could not be located on the subject property.
- (4) The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because:
  - a. The petitioners were made aware of this separation requirement when they applied for the Special Use Permit.
- (5) The requested waiver {SUBJECT TO THE PROPOSED SPECIAL CONDITION} {IS / IS NOT} the minimum variation that will make possible the reasonable use of the land/structure because:
  - a. Without the proposed waiver, the PV SOLAR FARM could not be located on the subject property.
- B. Regarding Part B of the proposed waivers, for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet:
  - (1) The waiver *{IS/ IS NOT}* in accordance with the general purpose and intent of the Zoning Ordinance and *{WILL/ WILL NOT}* be injurious to the neighborhood or to the public health, safety, and welfare because:
    - a. The requested waiver (variance) is 19% of the minimum required, for a variance of 81%.
    - b. Relevant jurisdictions have been notified of this case, and no comments have been received.
  - (2) Special conditions and circumstances *{DO / DO NOT}* exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:

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- a. The adjacent lot less than 10 acres is on the north side of Windsor Road and is vacant.
- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied *{WILL / WILL NOT}* prevent reasonable or otherwise permitted use of the land or structure or construction because:
  - a. The northernmost part of the PV SOLAR FARM would have to be moved south 195 feet, which could affect the feasibility of the project.
- (4) The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because:
  - a. The petitioners were made aware of this requirement when they applied for the Special Use Permit.
- (5) The requested waiver {SUBJECT TO THE PROPOSED SPECIAL CONDITION} {IS / IS NOT} the minimum variation that will make possible the reasonable use of the land/structure because:
  - a. The northernmost part of the PV SOLAR FARM would have to be moved south 195 feet, which could affect the feasibility of the project.
- C. Regarding Part C of the proposed waivers, for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board:
  - (1) The waiver *{IS/ IS NOT}* in accordance with the general purpose and intent of the Zoning Ordinance and *{WILL/ WILL NOT}* be injurious to the neighborhood or to the public health, safety, and welfare because:
    - a. The requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
    - b. A special condition has been added requiring this information prior to approval of a Zoning Use Permit.
  - (2) Special conditions and circumstances *{DO / DO NOT}* exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:
    - a. The petitioner is working with relevant jurisdictions to receive either an agreement or a waiver from this requirement.
    - b. A special condition has been added requiring this information prior to approval of a Zoning Use Permit.
  - (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied *{WILL / WILL NOT}* prevent reasonable or otherwise permitted use of the land or structure or construction because:
    - a. Without the proposed waiver, the Special Use Permit process might have to be extended in order to have sufficient time to prepare this document.
  - (4) The special conditions, circumstances, hardships, or practical difficulties {DO / DO NOT} result from actions of the applicant because:

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- a. The petitioner is working to receive either an agreement or a waiver from relevant jurisdictions.
- (5) The requested waiver {*SUBJECT TO THE PROPOSED SPECIAL CONDITION*} *{IS / IS NOT*} the minimum variation that will make possible the reasonable use of the land/structure because:
  - a. Roadway agreements take time to establish and that timeframe is not entirely in the control of the petitioner.
- 7. {NO SPECIAL CONDITIONS ARE HEREBY IMPOSED / <u>THE SPECIAL CONDITIONS</u> <u>IMPOSED HEREIN ARE REQUIRED TO ENSURE COMPLIANCE WITH THE CRITERIA</u> <u>FOR SPECIAL USE PERMITS AND FOR THE PARTICULAR PURPOSES DESCRIBED</u> <u>BELOW</u>:
  - A. The approved site plan consists of the following documents:
    - Site Plan received January 10, 2024.

The special condition stated above is required to ensure the following: The constructed PV SOLAR FARM is consistent with the special use permit approval.

B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.

The special condition stated above is required to ensure the following: That exterior lighting for the proposed Special Use meets the requirements established for Special Uses in the Zoning Ordinance.

C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.

The special condition stated above is required to ensure the following: That the proposed Special Use meets applicable state requirements for accessibility.

D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.

The special condition stated above is required to ensure the following: That the land affected by PV SOLAR FARM is restored to its preconstruction capabilities.

E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the

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Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

The special condition stated above is required to ensure the following:

The Special Use Permit complies with Ordinance requirements and as authorized by waiver.

F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.

The special condition stated above is required to ensure the following:

To ensure full compliance with the intent of the Zoning Ordinance in a timely manner that meets the needs of the applicant.

- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).
  - 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
  - 7. The telephone number for the complaint hotline required by 6.1.5 S.
  - 8. Any updates to the approved Site Plan from Case 126-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.

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9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed consistent with the Special Use Permit approval and in compliance with the Ordinance requirements.

- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:
  - 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
  - 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
  - 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.

The special condition stated above is required to ensure the following:

The PV SOLAR FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).
  - 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).
  - 4. Maintain a current general liability policy as required by 6.1.5 O.
  - 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
  - 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.

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  - 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.

The special condition stated above is required to ensure the following: Future requirements are clearly identified for all successors of title, lessees, any operator and/or owner of the PV SOLAR FARM.

J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed in compliance with the Ordinance requirements.

K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

The special condition stated above is required to ensure the following: Conformance with Policy 4.2.3 of the Land Resource Management Plan.

L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

The special condition stated above is required to ensure the following: That drainage district tiles are protected.

M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The special condition stated above is required to ensure the following: That the current version of the Zoning Ordinance has been referenced.

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# FINAL DETERMINATION

The Champaign County Zoning Board of Appeals finds that, based upon the application, testimony, and other evidence received in this case, that the requirements for approval of Section 9.1.11B. {*HAVE / HAVE NOT*} been met, and pursuant to the authority granted by Section 9.1.6 B. of the Champaign County Zoning Ordinance, recommends that:

The Special Use requested in Case **126-S-23** is hereby *{GRANTED/GRANTED WITH SPECIAL CONDITIONS / DENIED}* to the applicant, **FFP IL Community Solar**, to authorize the following as a Special Use on land in the AG-2 Agriculture Zoning District:

Authorize a Community PV Solar Farm with a total nameplate capacity of 4.5 megawatts (MW), including access roads and wiring, and

*{SUBJECT TO THE FOLLOWING WAIVERS OF STANDARD CONDITIONS:}* 

- Part A: A waiver for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality per Section 6.1.5 B.(2)a.(a).
- Part B: A waiver for locating the PV Solar Farm 45 feet from an adjacent lot that is 10 acres or less in area in lieu of the minimum required 240 feet, per Section 6.1.5 D.(3)a.
- Part C: A waiver for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.

{ SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS: }

- A. The approved site plan consists of the following documents:Site Plan received January 10, 2024.
- B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.
- C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.
- D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.
- E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a

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Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

- F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.
- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).
  - 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
  - 7. The telephone number for the complaint hotline required by 6.1.5 S.
  - 8. Any updates to the approved Site Plan from Case 126-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.
  - 9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.
- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:

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- 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
- 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
- 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.
- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).
  - 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).
  - 4. Maintain a current general liability policy as required by 6.1.5 O.
  - 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
  - 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.
  - 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.
- J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.
- K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.
- L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the

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# PRELIMINARY DRAFT

positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

# M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

SIGNED:

Ryan Elwell, Chair Champaign County Zoning Board of Appeals

ATTEST:

Secretary to the Zoning Board of Appeals

Date

# 127-S-23

# SUMMARY OF EVIDENCE, FINDING OF FACT AND FINAL DETERMINATION

 $\mathbf{of}$ 

# **Champaign County Zoning Board of Appeals**

Final Determination:	{RECOMMEND APPROVAL / RECOMMEND DENIAL}
Date:	{January 25, 2024}
Petitioners:	FFP IL Community Solar, via agent Christian Schlesinger, with participating landowner Kathryn Bonacci
Request:	Authorize a Community PV Solar Farm with a total nameplate capacity of 4.5 megawatts (MW), including access roads and wiring, in the AG-2 Zoning District, and including the following waivers of standard conditions:
	Part A: A waiver for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality per Section 6.1.5 B.(2)a.(a).
	Part B: A waiver for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.
	Other waivers may be necessary.

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# SUMMARY OF EVIDENCE

From the documents of record and the testimony and exhibits received at the public hearing conducted on January 25, 2024, the Zoning Board of Appeals of Champaign County finds that:

- 1. FFP IL Community Solar, LLC, a subsidiary of Forefront Power LLC, 100 Montgomery Street, Suite 725, San Francisco, CA, 94104, with Yumitake Furukawa (Deputy Chief Executive Officer, Chief Compliance Officer); Charlie Sohm (Chief Development Officer), Daniel Taylor (Chief Strategy Officer), Yohei Kishi (Chief Financial Officer) and Kristin Frooshani (Chief Legal Officer, Secretary); via agent Christian Schlesinger, and participating landowner Kathryn Bonacci, are the developers of the proposed PV Solar Farm.
- 2. The subject property is three tracts of land totaling 55.81 acres located in the Northeast Quarter of Section 27, Township 19 North, Range 9 East of the Third Principal Meridian in Urbana Township, and commonly known as farmland owned by Kathryn Bonacci in the southwest corner of the intersection of Windsor Road and IL 130 (High Cross Rd), Urbana.
  - The proposed 2.5 MW Bonacci Solar Site 2 would cover approximately 15.96 acres on the A. west side of the tract.
- Regarding municipal extraterritorial jurisdiction and township planning jurisdiction: 3.
  - The subject property is adjacent to the City of Urbana, a municipality with zoning. A. Municipalities with zoning are notified of Special Use Permit cases, but do not have protest rights in these cases.
    - The City of Urbana Comprehensive Plan calls for residential development in this (1)area.
    - (2)In an email received January 9, 2024, Kevin Garcia with the City of Urbana stated the following:
      - a. Our current comprehensive plan, which was adopted in 2005, shows a potential extension of Stone Creek Boulevard to the south, across Windsor Road, which would run through the westernmost portion of Site 2;
      - We are currently writing a new comprehensive plan, which may include this b. same potential extension;
      - This area lacks sewer infrastructure; it would require a large investment for c. the site or surrounding area be developed in the future, so it is unlikely that any development would take place in the area south of Windsor and west of High Cross Road any time soon;
      - The decommissioning plan would return the sites to their pre-development d. condition, and would therefore accommodate future development. We therefore have no issue with plans to develop these sites as solar farms, and therefore waive our requirement that the County hold two meetings on these cases."

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B. The subject property is located within Urbana Township, which does not have a Planning Commission. Townships with Planning Commissions are notified of Special Use Permit cases, but do not have protest rights in these cases.

# GENERALLY REGARDING LAND USE AND ZONING IN THE IMMEDIATE VICINITY

- 4. Regarding land use and zoning on the subject property and in the vicinity of the subject property:
  - A. The 55.81-acre subject property is zoned AG-2 Agriculture and is currently in agricultural production.
    - (1) The proposed PV SOLAR FARM would be located on approximately 15.96 acres of the subject property.
  - B. Land north of the subject property is within the City of Urbana. There is an Ameren electrical substation and vacant land to the north.
    - (1) There are two residences located northwest of the subject property adjacent to A&E Animal Hospital.
  - C. Land to the west, east, and south of the subject property is zoned AG-2 Agriculture and is in agricultural production.
    - (1) There is a 6 MW PV SOLAR ARRAY under construction on the west side of the subject property which was approved in Case 080-S-22 (Donato).

# GENERALLY REGARDING THE PROPOSED SPECIAL USE

- 5. Regarding the Site plan for the proposed Special Use received January 10, 2024:
  - A. The Site Plan includes the following proposed features:
    - (1) One 2.5-megawatt community PV SOLAR FARM site on approximately 15.96 acres; and
    - (2) 7-feet tall perimeter fence with gated security entrance; and
    - (3) One equipment pad; and
    - (4) A gravel access road extending approximately 1,000 feet south and then 600 feet west from Windsor Road; and
    - (5) The Point of Interconnection (POI) is proposed to connect to an existing power line and substation on Windsor Road; and
    - (6) The nearest residence is approximately 940 feet from the solar farm fenced area; and
    - (7) There is a separation of 1,100 feet between the PV SOLAR FARM perimeter fence and the street centerline of Windsor Road.
  - C. There are no previous Zoning Use Permits for the subject property.
  - D. There are no previous Zoning Cases for the subject property.

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# PRELIMINARY DRAFT

# **GENERALLY REGARDING SPECIFIC ORDINANCE REQUIREMENTS**

- 6. Regarding authorization for a "COMMUNITY PV SOLAR FARM" in the AG-2 Agriculture Zoning District in the *Zoning Ordinance*:
  - A. The County Board amended the Zoning Ordinance by adopting PV SOLAR FARM requirements when it adopted Ordinance No. 2018-4 on August 23, 2018.
    - (1) The County Board amended the Zoning Ordinance by amending PV SOLAR FARM requirements when it adopted Ordinance 2020-1 on February 24, 2020, Ordinance 2020-7 on May 22, 2020, and Ordinance 2020-8 on May 22, 2020.
  - B. The following definitions from the *Zoning Ordinance* are especially relevant to the requested Special Use Permit (capitalized words are defined in the Ordinance):
    - (1) "ACCESS" is the way MOTOR VEHICLES move between a STREET or ALLEY and the principal USE or STRUCTURE on a LOT abutting such STREET or ALLEY.
    - (2) "BEST PRIME FARMLAND" is Prime Farmland Soils identified in the Champaign County Land Evaluation and Site Assessment (LESA) System that under optimum management have 91% to 100% of the highest soil productivities in Champaign County, on average, as reported in the *Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils*. Best Prime Farmland consists of the following:
      - a. Soils identified as Agriculture Value Groups 1, 2, 3 and/or 4 in the Champaign County LESA system;
      - b. Soils that, in combination on a subject site, have an average LE of 91 or higher, as determined by the Champaign County LESA system;
      - c. Any development site that includes a significant amount (10% or more of the area proposed to be developed) of Agriculture Value Groups 1, 2, 3 and/or 4 soils as determined by the Champaign County LESA system.
    - (3) "DWELLING OR PRINCIPAL BUILDING, PARTICIPATING" is a DWELLING on land that is leased to a WIND FARM or a PV SOLAR FARM.
    - (4) "DWELLING OR PRINCIPAL BUILDING, NON- PARTICIPATING" is a DWELLING on land that is not leased to a WIND FARM or a PV SOLAR FARM.
    - (5) "FRONTAGE" is that portion of a LOT abutting a STREET or ALLEY.
    - (6) "LOT" is a designated parcel, tract or area of land established by PLAT, SUBDIVISION or as otherwise permitted by law, to be used, developed or built upon as a unit.
    - (7) "LOT LINE, FRONT" is a line dividing a LOT from a STREET or easement of ACCESS. On a CORNER LOT or a LOT otherwise abutting more than one STREET or easement of ACCESS only one such LOT LINE shall be deemed the FRONT LOT LINE.
    - (8) "LOT LINE, REAR" is any LOT LINE which is generally opposite and parallel to the FRONT LOT LINE or to a tangent to the midpoint of the FRONT LOT LINE. In

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the case of a triangular or gore shaped LOT or where the LOT comes to a point opposite the FRONT LOT LINE it shall mean a line within the LOT 10 feet long and parallel to and at the maximum distance from the FRONT LOT LINE or said tangent.

- (9) "LOT LINES" are the lines bounding a LOT.
- (10) "NON-ADAPTABLE STRUCTURE" is any STRUCTURE or physical alteration to the land which requires a SPECIAL USE permit, and which is likely to become economically unfeasible to remove or put to an alternate USE allowable in the DISTRICT (by right or by SPECIAL USE).
- (11) "NOXIOUS WEEDS" are any of several plants designated pursuant to the Illinois Noxious Weed Law (505 ILCS 100/1 et seq.) and that are identified in 8 Illinois Administrative Code 220.
- (12) "PHOTOVOLTAIC (PV)" is a type of solar energy system that produces electricity by the use of photovoltaic cells that generate electricity when struck by light.
- (13) "PV SOLAR FARM" is a unified development intended to convert sunlight into electricity by photovoltaic (PV) devices for the primary purpose of wholesale sales of generated electricity. A PV SOLAR FARM is under a common ownership and operating control even though parts of the PV SOLAR FARM may be located on land leased from different owners. A PV SOLAR FARM includes all necessary components including access driveways, solar devices, electrical inverter(s), electrical transformer(s), cabling, a common switching station, maintenance and management facilities, and waterwells. PV SOLAR FARM should be understood to include COMMUNITY PV SOLAR FARM unless specified otherwise in the relevant section or paragraph.
- (14) "PV SOLAR FARM, COMMUNITY" is a PV SOLAR FARM of not more than 2,000 kilowatt nameplate capacity that meets the requirements of 20 ILCS 3855/1-10 for a "community renewable generation project" and provided that two COMMUNITY PV SOLAR FARMS may be co-located on the same or contiguous parcels as either a) two 2-MW projects on one parcel, or b) one 2-MW project on each of two contiguous parcels, as authorized by the Illinois Commerce Commission in Final Order 17-0838 on April 3, 2018.
- (15) "PRIVATE ACCESSWAY" is a service way providing ACCESS to one or more LOTS which has not been dedicated to the public.
- (16) "PRIVATE WAIVER" is a written statement asserting that a landowner has agreed to waive a specific WIND FARM or PV SOLAR FARM standard condition and has knowingly agreed to accept the consequences of the waiver. A PRIVATE WAIVER must be signed by the landowner.
- (17) "RIGHT-OF-WAY" is the entire dedicated tract or strip of land that is to be used by the public for circulation and service.

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### PRELIMINARY DRAFT

- (18) "SCREEN" is a STRUCTURE or landscaping element of sufficient opaqueness or density and maintained such that it completely obscures from view throughout its height the PREMISES upon which the screen is located.
- (19) "SCREEN PLANTING" is a vegetative material of sufficient height and density to filter adequately from view, in adjoining DISTRICTS, STRUCTURES, and USES on the PREMISES upon which the SCREEN PLANTING is located.
- (20) "SETBACK LINE" is the BUILDING RESTRICTION LINE nearest the front of and across a LOT establishing the minimum distance to be provided between a line of a STRUCTURE located on said LOT and the nearest STREET RIGHT-OF-WAY line.
- (21) "SPECIAL CONDITION" is a condition for the establishment of a SPECIAL USE.
- (22) "SPECIAL USE" is a USE which may be permitted in a DISTRICT pursuant to, and in compliance with, procedures specified herein.
- (23) "STREET" is a thoroughfare dedicated to the public within a RIGHT-OF-WAY which affords the principal means of ACCESS to abutting PROPERTY. A STREET may be designated as an avenue, a boulevard, a drive, a highway, a lane, a parkway, a place, a road, a thoroughfare, or by other appropriate names. STREETS are identified on the Official Zoning Map according to type of USE, and generally as follows:

(a) MAJOR STREET: Federal or State highways.

- (b) COLLECTOR STREET: COUNTY highways and urban arterial STREETS.(c) MINOR STREET: Township roads and other local roads.
- (24) WELL SUITED OVERALL: A discretionary review performance standard to describe the site on which a development is proposed. A site may be found to be WELL SUITED OVERALL if the site meets these criteria:
  - a. The site is one on which the proposed development can be safely and soundly accommodated using simple engineering and common, easily maintained construction methods with no unacceptable negative effects on neighbors or the general public; and
  - b. The site is reasonably well-suited in all respects and has no major defects.
- C. Section 5.2 only authorizes a "PV SOLAR FARM" in the AG-1 or AG-2 Zoning Districts and requires a Special Use Permit authorized by the County Board.
- D. Paragraph 6.1.2 A. indicates that all Special Use Permits with exterior lighting shall be required to minimize glare on adjacent properties and roadways by the following means:
  - (1) All exterior light fixtures shall be full-cutoff type lighting fixtures and shall be located and installed so as to minimize glare and light trespass. Full cutoff means that the lighting fixture emits no light above the horizontal plane.
  - (2) No lamp shall be greater than 250 watts and the Board may require smaller lamps when necessary.

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- (3) Locations and numbers of fixtures shall be indicated on the site plan (including floor plans and building elevations) approved by the Board.
- (4) The Board may also require conditions regarding the hours of operation and other conditions for outdoor recreational uses and other large outdoor lighting installations.
- (5) The Zoning Administrator shall not approve a Zoning Use Permit without the manufacturer's documentation of the full-cutoff feature for all exterior light fixtures.
- E. Section 6.1.5 contains the standard conditions for any PV SOLAR FARM which are as follows (capitalized words are defined in the Ordinance):
  - (1) Requirements for what must be included in the area of the PV SOLAR FARM are in 6.1.5 B.(1).
  - (2) Requirements for where a PV SOLAR FARM cannot be located are in 6.1.5 B.(2).
  - (3) Paragraph 6.1.5 C. eliminates LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, and maximum LOT COVERAGE requirements from applying to a PV SOLAR FARM.
  - (4) Paragraph 6.1.5 D. contains minimum separations for PV SOLAR FARMS from adjacent USES and STRUCTURES.
  - (5) Paragraph 6.1.5 E. contains standard conditions for the design and installation of PV SOLAR FARMS.
  - (6) Paragraph 6.1.5 F. contains standard conditions to mitigate damage to farmland.
  - (7) Paragraph 6.1.5 G. contains standard conditions for use of public streets.
  - (8) Paragraph 6.1.5 H. contains standard conditions for coordination with local fire protection districts.
  - (9) Paragraph 6.1.5 I. contains standard conditions for the allowable noise level.
  - (10) Paragraph 6.1.5 J. contains standard conditions for endangered species consultation.
  - (11) Paragraph 6.1.5 K. contains standard conditions for historic and archaeological resources review.
  - (12) Paragraph 6.1.5 L. contains standard conditions for acceptable wildlife impacts from PV SOLAR FARM construction and ongoing operations.
  - (13) Paragraph 6.1.5 M. contains standard conditions for screening and fencing of PV SOLAR FARMS.
  - (14) Paragraph 6.1.5 N. contains standard conditions to minimize glare from PV SOLAR FARMS.

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# PRELIMINARY DRAFT

- (15) Paragraph 6.1.5 O. contains standard conditions for liability insurance.
- (16) Paragraph 6.1.5 P. contains other standard conditions for operation of PV SOLAR FARMS.
- (17) Paragraph 6.1.5 Q. contains standard conditions for a decommissioning plan and site reclamation agreement for PV SOLAR FARMS and modifies the basic site reclamation requirements in paragraph 6.1.1 A.
- (18) Paragraph 6.1.5 R. contains standard conditions for securing an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- (19) Paragraph 6.1.5 S. contains standard conditions for a complaint hotline for complaints related to PV SOLAR FARM construction and ongoing operations.
- (20) Paragraph 6.1.5 T. contains the standard condition for expiration of the PV SOLAR FARM County Board Special Use Permit.
- (21) Paragraph 6.1.5 U. contains standard conditions establishing additional requirements for application for a PV SOLAR FARM County Board Special Use Permit that supplement the basic requirements for a special use permit application.
- F. Section 9.1.11 requires that a Special Use Permit shall not be granted by the Zoning Board of Appeals unless the public hearing record and written application demonstrate the following:
  - (1) That the Special Use is necessary for the public convenience at that location;
  - (2) That the Special Use is so designed, located, and proposed as to be operated so that it will not be injurious to the DISTRICT in which it shall be located or otherwise detrimental to the public welfare except that in the CR, AG-1, and AG-2 DISTRICTS the following additional criteria shall apply:
    - a. The property is either BEST PRIME FARMLAND and the property with proposed improvements in WELL SUITED OVERALL or the property is not BEST PRIME FARMLAND and the property with proposed improvements is SUITED OVERALL.
    - b. The existing public services are available to support the proposed SPECIAL USE effectively and safely without undue public expense.
    - c. The existing public infrastructure together with proposed improvements is adequate to support the proposed development effectively and safely without undue public expense.
  - (3) That the Special Use conforms to the applicable regulations and standards of and preserves the essential character of the DISTRICT in which it shall be located, except where such regulations and standards are modified by Section 6.
  - (4) That the Special Use is in harmony with the general purpose and intent of this ordinance.

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- (5) That in the case of an existing NONCONFORMING USE, it will make such USE more compatible with its surroundings.
- G. Paragraph 9.1.11.D.1. states that a proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Regarding standard conditions:
  - (1) The Ordinance requires that a waiver of a standard condition requires the following findings:
    - a. that the waiver is in accordance with the general purpose and intent of the ordinance; and
    - b. that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.
  - (2) However, a waiver of a standard condition is the same thing as a variance and Illinois law (55ILCS/ 5-12009) requires that a variance can only be granted in accordance with general or specific rules contained in the Zoning Ordinance and the VARIANCE criteria in paragraph 9.1.9 C. include the following in addition to criteria that are identical to those required for a waiver:
    - a. Special conditions and circumstances exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.
    - b. Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied will prevent reasonable or otherwise permitted use of the land or structure or construction
    - c. The special conditions, circumstances, hardships, or practical difficulties do not result from actions of the applicant.
  - (3) Including findings based on all of the criteria that are required for a VARIANCE for any waiver of a standard condition will eliminate any concern related to the adequacy of the required findings for a waiver of a standard condition and will still provide the efficiency of not requiring a public hearing for a VARIANCE, which was the original reason for adding waivers of standard conditions to the Ordinance.
- H. Paragraph 9.1.11.D.2. states that in granting any SPECIAL USE permit, the BOARD may prescribe SPECIAL CONDITIONS as to appropriate conditions and safeguards in conformity with the Ordinance. Violation of such SPECIAL CONDITIONS when made a party of the terms under which the SPECIAL USE permit is granted, shall be deemed a violation of this Ordinance and punishable under this Ordinance.

# GENERALLY REGARDING WHETHER THE SPECIAL USE IS NECESSARY FOR THE PUBLIC CONVENIENCE AT THIS LOCATION

7. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use is necessary for the public convenience at this location:

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  - The Petitioner has testified on the application, "The proposed solar project is situated A. within a predominantly rural, agricultural area of Champaign County, IL. Allowing this property to be developed into a solar facility will provide 2.5 MWs of clean, renewable energy to the local electrical grid. In addition, this project will help generate additional income for the landowner, contribute to job creation stimulation through new investments in energy efficiency, renewables, and innovation, and also help preserve the State of Illinois' low energy rates for residents and businesses within the County. The proposed Project would be situated on land that is adequately set back from surrounding residential areas. Because there are no significant traffic impacts associated with the construction and maintenance of the solar farm and no dangerous or hazardous chemicals contained within the PV modules, there are no anticipated effects to public health, safety, comfort, convenience, morals, or general welfare to the citizens of Urbana. Due to the location of the Project Area and relatively small size of the proposed solar project (2.5MW AC), traffic impacts are expected to be minimal. Once constructed, traffic conditions on site will be limited to approximately one utility vehicle per month accessing the site for maintenance purposes."
  - B. The State of Illinois has adopted a Renewable Portfolio Standard that established a goal of 25% of the State's energy coming from renewable sources by the year 2025.
  - C. The Illinois Future Energy Jobs Act requires installation of 3,000 MW of new solar capacity by the year 2030.

# GENERALLY REGARDING WHETHER THE SPECIAL USE WILL BE INJURIOUS TO THE DISTRICT OR OTHERWISE INJURIOUS TO THE PUBLIC WELFARE

- 8. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use be designed, located, and operated so that it will not be injurious to the District in which it shall be located, or otherwise detrimental to the public welfare:
  - The Petitioner has testified on the application, "The proposed Project would be situated A. on rural agricultural land, located away from public areas. The entire Project Premises will be contained within a six-foot tall chain link fence with a locked access gate in order to prevent trespassing. In addition, warning signage will be clearly posted at the ingress/egress point of the Project Premises and will contain emergency contact information and the 911 address. Furthermore, vegetation within the Project Premises will be regularly maintained to prevent any increase in fire hazard to the Project Premises and adjacent areas. Because there are no significant traffic impacts associated with the construction and maintenance of the solar farm and no dangerous or hazardous chemicals contained within the PV modules, there are no anticipated effects to public health, safety, comfort, convenience, morals, or general welfare to the citizens of the County. The existence of this solar Project is not expected to affect the value of land and buildings surrounding the Project Premises. According to the National Renewable Energy Laboratory, once constructed, solar projects require little maintenance and no on-site employees. FFP IL Community Solar, LLC intends on utilizing PV modules for this system which use a nonreflective glass and are designed to absorb light rather than reflect it, thus reducing glint and glare to adjacent roadways and residences. Furthermore, the noisiest components of the solar

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farms are the inverters, which generate a low buzzing sound as they convert electricity from direct current to alternating current. This noise is generally not audible above ambient noise outside of the perimeter fence."

- B. Regarding surface drainage, the PV SOLAR FARM fenced area generally drains toward the east.
- C. Regarding traffic in the subject property area:
  - (1) The proposed solar farm would have one access on East Windsor Road. Although the subject property also fronts High Cross Road/IL 130, there would be no access there.
  - (2) East Windsor Road is a five-lane urban arterial. High Cross Road/IL 130 is a threelane urban arterial.
  - (3) The Illinois Department of Transportation measures traffic on various roads throughout the County and determines the annual average 24-hour traffic volume for those roads and reports it as Average Daily Traffic (ADT). The most recent ADT data is from 2021 near the subject property. Windsor Road had an ADT of 6,150 and High Cross Road/IL 130 had an ADT of 6,000 near the subject property.
  - (4) No significant increase in traffic is expected except during construction of the PV SOLAR FARM.
  - (5) The City of Urbana, IDOT, and Urbana Township Highway Commissioners have been notified of this case.
    - a. Urbana Township does not have maintenance jurisdiction over the adjacent roads.
    - b. In an email received January 9, 2024, Kevin Garcia with the City of Urbana said the City has no issue with plans to develop these sites as solar farms.
  - (6) No information was received regarding a Roadway Upgrade and Maintenance Agreement or waiver therefrom from the City of Urbana. The Zoning Ordinance does not require an agreement with IDOT.
- D. Regarding fire protection:
  - (1) The subject property is approximately 5.7 road miles from the Philo fire station.
  - (2) The petitioners sent the Site Plan to the Philo Fire Protection Chief via email on December 21, 2023. No response was received as of January 10, 2024.
  - (3) The Philo Fire Protection District was notified of this case and no comments have been received.
- E. No part of the subject property is located within a Special Flood Hazard Area.
- F. The subject property is considered Best Prime Farmland. The Natural Resource Information Report received November 28, 2023, states that the soil on the subject

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property consists of 152A Drummer silty clay loam, 171B Catlin silt Loam, 330A Peotone silty clay loam, and 663B Clare silt loam and has an average Land Evaluation score of 97.

- G. Regarding outdoor lighting on the subject property, the application received December 15, 2023, states "One motion-sensing security light will be installed at the entrance gate of the Project Premises. The security light will be shielded and downcast to minimize disturbance to the adjacent properties. The lighting will be designed and sited to avoid any light from spilling onto any adjacent property." A special condition has been added to ensure compliance for any future outdoor lighting installation.
- H. Regarding wastewater treatment and disposal on the subject property, there is no wastewater treatment and disposal required or planned for the proposed PV SOLAR FARM.
- I. Regarding parking, there is no required parking for the proposed PV SOLAR FARM.
- J. Other than as reviewed elsewhere in this Summary of Evidence, there is no evidence to suggest that the proposed Special Use will generate either nuisance conditions such as odor, noise, vibration, glare, heat, dust, electromagnetic fields or public safety hazards such as fire, explosion, or toxic materials release, that are in excess of those lawfully permitted and customarily associated with other uses permitted in the zoning district.

# GENERALLY REGARDING WHETHER THE SPECIAL USE CONFORMS TO APPLICABLE REGULATIONS AND STANDARDS AND PRESERVES THE ESSENTIAL CHARACTER OF THE DISTRICT

- 9. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use conforms to all applicable regulations and standards and preserves the essential character of the District in which it shall be located, except where such regulations and standards are modified by Section 6 of the Ordinance:
  - A. The Petitioner has testified on the application, "Solar is an approved use with a Special Use Permit under the County Zoning Ordinance. FFP IL Community Solar, LLC will comply with all ordinances, requirements, and regulations set forth by Champaign County and will obtain all required local and state permits."
  - B. Regarding compliance with the *Zoning Ordinance*, the following evidence was provided:
    - (1) Section 5.2 authorizes a PV SOLAR FARM only by a County Board Special Use Permit in the AG-1 and AG-2 Agriculture Zoning Districts. It is not permitted by right in any district.
    - (2) There is no required parking.
    - (3) Requirements for what must be included in the area of the PV SOLAR FARM Special Use Permit are in subparagraph 6.1.5 B.(1).
      - a. The revised Site Plan received January 10, 2024 appears to conform to this requirement.
    - (4) Requirements which identify certain areas where a PV SOLAR FARM Special Use Permit shall not be located can be found in Subparagraph 6.1.5 B.(2).

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- a. Item 6.1.5 B.(2)a. requires a PV SOLAR FARM to be more than one and one half miles from an incorporated municipality with a zoning ordinance, unless the following is provided:
  - (a) No part of a PV SOLAR FARM shall be located within a contiguous urban growth area (CUGA) as indicated in the most recent update of the CUGA in the Champaign County Land Resource Management Plan, and there shall be a separation of one-half mile from a proposed PV SOLAR FARM to a municipal boundary at the time of application for the SPECIAL USE Permit, except for any power lines of 34.5 kVA or less and except for any proposed PV SOLAR FARM substation and related proposed connection to an existing substation.
    - i. The subject property is adjacent to the City of Urbana, a municipality with zoning. The PV Solar Farm will be located within the CUGA. A waiver has been added.
  - (b) The PV SOLAR FARM SPECIAL USE permit application shall include documentation that the applicant has provided a complete copy of the SPECIAL USE permit application to any municipality within one-and-one-half miles of the proposed PV SOLAR FARM.
    - i. The petitioner sent an email to the City of Urbana on December 8, 2023 which included the Special Use Permit application.
    - ii. In an email received January 9, 2024, Kevin Garcia with the City of Urbana said the City has no issue with plans to develop these sites as solar farms.
  - (c) The public hearing for any proposed PV SOLAR FARM that is located within one and one-half miles of a municipality that has a zoning ordinance shall occur at a minimum of two Board meetings that are not less than 28 days apart to provide time for municipal comments during the public hearing, unless the 28-day comment period is waived in writing by any relevant municipality.
    - i. In an email received January 9, 2024, Kevin Garcia with the City of Urbana waived the required for the County to hold two meetings on Cases 126-S-23 and 127-S-23.
  - (d) If no municipal resolution regarding the PV SOLAR FARM is received from any municipality located within one-and-one-half miles of the PV SOLAR FARM prior to the consideration of the PV SOLAR FARM SPECIAL USE permit by the Champaign County Board, the ZONING ADMINISTRATOR shall provide documentation to the County Board that any municipality within one-and-one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the County Board.

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- Notice of the January 25, 2024, ZBA public hearing was sent by P&Z Staff to the City of Urbana on January 10, 2024. City of Urbana staff were also notified of the receipt of the project application on December 20, 2023 by email.
- ii. No resolution from the City of Urbana has been received as of January 17, 2024.
- (5) Requirements regarding interconnection to the power grid can be found in Subparagraph 6.1.5 B.(3):
  - a. The utility interconnection application must be applied for with the relevant utility and documentation provided at the time of Special Use Permit application.
    - (a) The petitioner included an interconnection application with their Special Use Permit application received December 15, 2023.
  - b. Documentation must be provided that the utility has accepted the application for the PV SOLAR FARM prior to issuance of the Zoning Compliance Certificate.
- (6) Requirements regarding Right to Farm can be found in Subparagraph 6.1.5 B.(4): "The owners of the subject property and the Applicant, its successors in interest, and all parties to the decommissioning plan and site reclamation plan hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425."
  - a. A special condition has been added to ensure compliance.
- (7) Requirements regarding minimum lot standards can be found in Subparagraph 6.1.5 C.:
  - a. Subparagraph 6.1.5 C. eliminates LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, maximum LOT COVERAGE, or maximum LOT AREA requirements on BEST PRIME FARMLAND requirements for a PV SOLAR FARM or for LOTS for PV SOLAR FARM substations and/ or PV SOLAR FARM maintenance and management facilities.
- (8) Requirements regarding minimum separations for PV SOLAR FARMS from other STRUCTURES, BUILDINGS, and USES can be found in Subparagraph 6.1.5 D.
  - a. The Site Plan received January 10, 2024 shows the separations between the solar farm fence and adjacent buildings and uses.
  - b. The proposed PV SOLAR FARM complies with all minimum separations in paragraph 6.1.5 D. in the following manner:
    - (a) Subparagraph 6.1.5 D.(1) requires PV SOLAR FARM fencing to be set back from the street centerline a minimum of 40 feet from a MINOR STREET and a minimum of 55 feet from a COLLECTOR STREET and a minimum of 60 feet from a MAJOR STREET unless a greater separation is required for screening pursuant to Section

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6.1.5 M.(2)a., but in no case shall the perimeter fencing be less than 10 feet from the RIGHT OF WAY of any STREET.

- i. The Site Plan received January 10, 2024 demonstrates compliance with the 55 feet setback from the centerline of Windsor Road, which is a COLLECTOR STREET. It also demonstrates compliance with the 60 feet setback from the centerline of IL 130/High Cross Road, which is a MAJOR STREET.
- ii. Public Act 102-1123 requires a distance of 50 feet from the PV SOLAR FARM fence to the nearest edge of a public road RIGHT-OF-WAY.
  - The proposed distance complies with the Zoning Ordinance. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
- (b) Subparagraph 6.1.5 D.(2) states that for properties participating in the solar farm, there is no required separation from any existing DWELLING or existing PRINCIPAL BUILDING except as required to ensure that a minimum zoning lot is provided for the existing DWELLING or PRINCIPAL BUILDING.
  - a. The subject properties meet minimum zoning lot requirements.
- (c) Subparagraph 6.1.5 D.(3)a. states that for any adjacent LOT that is 10 acres or less in area (not including the STREET RIGHT OF WAY):
  - i. For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on no more than two sides by the PV SOLAR FARM, the separation shall be no less than 240 feet from the property line.
    - (i) There is an adjacent lot to the northwest that is 10 acres or less in lot area. There are adjacent lots on the north side of Windsor Road that are 10 acres or less in lot area. The Site Plan received January 10, 2024 demonstrates compliance with the 240 foot required separation between the PV SOLAR FARM fence and those property lines.
    - Public Act 102-1123 only requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property. The Site Plan received January 10, 2024 demonstrates compliance with Public Act 102-1123.
  - ii. For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on more than two sides by the

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PV SOLAR FARM, the separation shall exceed 240 feet as deemed necessary by the BOARD.

- (i) There are no lots that are 10 acres or less in lot area adjacent to the subject property that are bordered on more than two sides by the PV SOLAR FARM.
- Public Act 102-1123 requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
- (d) Subparagraph 6.1.5 D.(3)b. states that for any adjacent LOT that is more than 10 acres in area (not including the STREET RIGHT OF WAY), the separation shall be no less than 255 feet from any existing DWELLING or existing PRINCIPAL BUILDING and otherwise the perimeter fencing shall be a minimum of 10 feet from a SIDE or REAR LOT LINE. This separation distance applies to properties that are adjacent to or across a STREET from a PV SOLAR FARM.
  - i. The perimeter fencing of the PV SOLAR FARM is at least 10 feet away from any SIDE or REAR LOT LINE of an adjacent LOT that is more than 10 acres in area.
  - ii. Public Act 102-1123 requires a separation distance of 50 feet between the PV SOLAR FARM fence and the boundary lines of a NON-PARTICIPATING property. The proposed distance complies with the Zoning Ordinance. The Zoning Ordinance is less restrictive than Public Act 102-1123 in this requirement and therefore the proposed distance is acceptable.
- (e) Subparagraph 6.1.5 D.(3)c. states that additional separation may be required to ensure that the noise level required by 35 Ill. Admin. Code Parts 900, 901 and 910 is not exceeded or for other purposes deemed necessary by the BOARD.
  - i. There are no proposed additional separations at this time.
- (f) Subparagraph 6.1.5 D.(4) states that there must be a separation of at least 500 feet from specific types of airport and restricted landing area facilities unless the SPECIAL USE permit application includes results provided from an analysis using the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, Federal Aviation Administration (FAA) Review of Solar Energy Projects on Federally Obligated Airports, or the most recent version adopted by the FAA, and the SGHAT results show no detrimental affect with less than a 500 feet separation.

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- i. There is no AIRPORT or RESTRICTED LANDING AREA within 500 feet of the subject property.
- (g) Subparagraph 6.1.5 D.(5) requires a separation of at least 500 feet between substations and transmission lines of greater than 34.5 kVA to adjacent dwellings and residential DISTRICTS.
  - i. There are no new substations or transmission lines of greater than 34.5 kVA within 500 feet of adjacent dwellings or residential DISTRICTS.
- (h) Subparagraph 6.1.5 D.(6) states that electrical inverters shall be located as far as possible from property lines and adjacent DWELLINGS consistent with good engineering practice. Inverter locations that are less than 275 feet from the perimeter fence shall require specific approval and may require special sound deadening construction and noise analysis.
  - i. The inverters shown on the Site Plan received January 10, 2024 are 275 feet away from the PV SOLAR FARM perimeter fence.
  - Regarding the distance between the inverters and nearby lots with dwellings, based on the Site Plan received January 10, 2024:
    - (i) The inverters are located toward the center of the subject property. The distance between an inverter and the closest dwelling is 1,350 feet.
  - Public Act 102-1123 does not have a separation requirement for inverters. Not approving the waiver could create compliance issue with Public Act 102-1123.
- Subparagraph 6.1.5 D.(7) states that separation distances for any PV
   SOLAR FARM with solar equipment exceeding 8 feet in height, with the exception of transmission lines which may be taller, shall be determined by the BOARD on a case-by-case basis.
  - i. The application stated that the arrays will not exceed 12 feet in height at maximum tilt.
  - ii. Public Act 102-1123 states that solar equipment can extend up to 20 feet above ground. Should the ZBA decide that additional separations are needed due to height, it could create compliance issue with Public Act 102-1123.
- (j) Subparagraph 6.1.5 D.(8) states that PV SOLAR FARM solar equipment other than inverters shall be no less than 26 feet from the property line of any lot more than 10 acres in area.
  - i. The Site Plan received January 10, 2024, shows that there is at least 26 feet of separation between the property line of any lot

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more than 10 acres in area and the PV SOLAR FARM equipment other than fencing.

- (9) Paragraph 6.1.5 E. contains standard conditions for the design and installation of PV SOLAR FARMS. Compliance with paragraph 6.1.5 E. can be summarized as follows:
  - a. Subparagraph 6.1.5 E.(1) requires certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer or other qualified professional that that the constructed building conforms to Public Act 96-704 regarding building code compliance and conforms to the Illinois Accessibility Code.
    - (a) The Special Use Permit application packet received December 15, 2023, does not include any buildings.
  - b. Subparagraph 6.1.5 E.(2) establishes minimum requirements for electrical components.
    - (a) Part 6.1.5 E.(2)a. states that all electrical components of the PV SOLAR FARM shall conform to the National Electrical Code as amended and shall comply with Federal Communications Commission (FCC) requirements.
      - i. The petitioner stated in their application materials, "The Project's facilities will be sited to comply with Champaign County setback requirements, where feasible, and will also comply with other local, state, and federal regulatory standards."
    - (b) Part 6.1.5 E.(2)b. states that burying power and communication wiring underground shall be minimized consistent with best management practice regarding PV solar farm construction and minimizing impacts on agricultural drainage tile.
      - i. The petitioner did not mention the depth of burying power and communication wiring in their application.
  - c. Subparagraph 6.1.5 E.(3) states that the height limitation established in Section 5.3 shall not apply to a PV SOLAR FARM, and requires the maximum height of all above ground STRUCTURES to be identified in the application and as approved in the SPECIAL USE permit.
    - (a) The petitioner indicated that all above ground structures would be less than twelve feet tall except for the utility poles.
  - d. Subparagraph 6.1.5 E.(4) requires that a reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
    - (a) The petitioner stated in the Special Use Permit application, "Visible warning signs shall be posted at each ingress/egress point associated with the Project. The Project emergency contact information and 911 address will be clearly posted on all warning signage."

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- e. Subparagraph 6.1.5 E.(5) requires that no PV SOLAR FARM construction may intrude on any easement or right of way for a GAS PIPELINE or HAZARDOUS LIQUID PIPELINE, an underground water main or sanitary sewer, a drainage district ditch or tile, or any other public utility facility unless specifically authorized by a crossing agreement that has been entered into with the relevant party.
  - (a) Drainage districts have been notified of the proposed project.
    - In an email received January 9, 2024, Byron Balbach, Attorney for both drainage districts in the subject property area, stated "no drainage facilities of either district are located within Site 1 or Site 2...you may need to consider storm water detention if your drainage off your project will increase beyond normal agricultural drainage."
  - (b) The subject property does not have a connection to public sewer or water.
  - (c) Champaign County Geographic Information Systems data does not show any gas or hazardous liquid lines on the subject property.
- Paragraph 6.1.5 F. contains standard conditions to mitigate damage to farmland.
   a. The subject property is considered Best Prime Farmland. The Natural Resource Information Report received November 28, 2023, states that the soil on the subject property consists of 152A Drummer silty clay loam, 171B Catlin silt Loam, 330A Peotone silty clay loam, and 663B Clare silt loam and has an average Land Evaluation score of 97.
  - b. The Applicant is required to sign an Agricultural Impact Mitigation Agreement, which would include requirements to mitigate damage to farmland per 505 ILCS 147/15(b). A special condition has been added to ensure compliance.
  - c. Regarding pollinator friendly ground cover in the mitigation of damage to farmland, the petitioner stated in their application materials received December 15, 2023, "The proposed Project may follow practices that: (1) provide native perennial vegetation and foraging habitat, which is beneficial to game birds, songbirds, and pollinators; and (2) reduce stormwater runoff and erosion at the solar site. To the extent practical, if establishing perennial vegetation and beneficial foraging habitat, the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds. A detailed Vegetation Maintenance Plan will be completed and submitted."
    - (a) A Vegetation Establishment and Management Plan was received on January 10, 2024.
  - d. Subparagraph 6.1.5 F.(1) establishes a minimum depth of 5 feet for underground wiring or cabling below grade or deeper if required to maintain a minimum one foot of clearance between the wire or cable and

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any agricultural drainage tile or a lesser depth if so authorized by the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 R.

- (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that establishes the cable depths to be used.
- e. Subparagraph 6.1.5 F.(2) establishes requirements for protection of agricultural drainage tile.
  - (a) The petitioner provided a preliminary potential drain tile map.
  - (b) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that establishes rerouting and permanent repair of agricultural drainage tiles.
  - (c) In an email received January 9, 2024, Byron Balbach, Attorney for both drainage districts in the subject property area, stated "no drainage facilities of either district are located within Site 1 or Site 2...you may need to consider storm water detention if your drainage off your project will increase beyond normal agricultural drainage."
- f. Subparagraph 6.1.5 F.(3) requires restoration for any damage to soil conservation practices.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that states, "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."
- g. Subparagraph 6.1.5 F.(4) establishes requirements for topsoil replacement pursuant to any open trenching.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that details how topsoil is to be handled.
- h. Subparagraph 6.1.5 F.(5) establishes requirements for mitigation of soil compaction and rutting.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that details how the facility owner must mitigate compaction and rutting.

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- i. Subparagraph 6.1.5 F.(6) establishes requirements for land leveling.
  - (a) The petitioner did not provide a response in the application materials.
- j. Subparagraph 6.1.5 F.(7) establishes requirements for a permanent Erosion and Sedimentation Control Plan.
  - (a) The Special Use Permit application received December 15, 2023 states, "A detailed Erosion Control Plan will be completed and submitted as a portion of the Building Permit for the site."
- k. Subparagraph 6.1.5 F.(8) establishes requirements for retention of all topsoil.
  - (a) The Special Use Permit application received December 15, 2023 includes an Agricultural Impact Mitigation Agreement that details how topsoil will be handled.
- 1. Subparagraph 6.1.5 F.(9) establishes requirements for minimizing the disturbance to BEST PRIME FARMLAND by establishing a specific type of vegetative ground cover.
  - (a) A Vegetation Establishment and Management Plan was received on January 10, 2024.
- (11) Paragraph 6.1.5 G. contains standard conditions for use of public streets.
  - a. Paragraph 6.1.5 G.(1) requires the Applicant to enter into a signed Roadway Upgrade and Maintenance agreement approved by the County Engineer and State's Attorney and/or any relevant Township Highway Commissioner prior to the close of the public hearing for the use of public streets, except for any COMMUNITY PV SOLAR FARM for which the relevant highway authority has agreed in writing to waive the requirements, and the signed and executed Roadway Upgrade and Maintenance agreements must provide for certain conditions.
    - (a) The petitioner did not provide information on a Roadway Upgrade and Maintenance Agreement in their application. A waiver has been added to request this at a later time, and a special condition has been added to ensure compliance.
  - b. Paragraph 6.1.5 G.(2) requires that the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality where relevant, has approved a Transportation Impact Analysis provided by the Applicant and prepared by an independent engineer that is mutually acceptable to the Applicant and the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality.
    - (a) The petitioner did not provide information regarding a Transportation Impact Analysis in their application. A special condition has been added to ensure compliance.
  - c. Paragraph 6.1.5 G.(3) requires the Applicant or its successors in interest to enter into a Roadway Use and Repair Agreement with the appropriate highway authority for decommissioning the PV SOLAR FARM.

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- (a) No information was required or submitted for the Special Use Permit application.
- (12) Paragraph 6.1.5 H. contains standard conditions for coordination with local fire protection districts.
  - a. The subject property is approximately 5.7 road miles from the Philo fire station.
  - b. The petitioners sent the Site Plan to the Philo Fire Protection District on December 20, 2023 and no comments have been received as of January 10, 2024.
  - c. The Philo Fire Protection District was notified of this case and no comments have been received.
- (13) Paragraph 6.1.5 I. contains standard conditions for the allowable noise level.
  - a. Subparagraph 6.1.5 I.(1) requires the noise level from each PV SOLAR FARM to be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
    - (a) The petitioner stated in their application, "Noise levels will be in compliance with the Illinois Pollution Control Board regulations."
  - b. Subparagraph 6.1.5 I.(3)a. requires that a SPECIAL USE Permit application for other than a COMMUNITY PV SOLAR FARM shall include a noise analysis.
    - (a) The project size is considered to be a COMMUNITY PV SOLAR FARM and therefore a noise analysis is not required unless the ZBA requires one.
- (14) Paragraph 6.1.5 J. contains standard conditions for endangered species consultation. Regarding compliance with 6.1.5 J.:
  - a. The petitioner stated in their application, "Westwood conducted an IPaC coordination with the U.S. Fish and Wildlife Service (USFWS) (2023). The results of the effort identified six federally endangered, threatened, proposed, candidate, or Non-essential Experimental Population (NEP) species as potentially occurring within the Project Area or surrounding region."
  - b. The petitioner stated in their application, "On September 27, 2023, Westwood submitted an EcoCAT (IDNR 2023d) request to the Illinois Department of Natural Resources (IDNR) for information regarding statelisted threatened or endangered species (Appendix E). The request (IDNR #2405178) identified no records of state-listed threatened or endangered species within the Project Area and surrounding vicinity."
- (15) Paragraph 6.1.5 K. contains standard conditions for historic and archaeological resources review. Regarding compliance with 6.1.5 K.:

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- a. The petitioner stated in their application, "As a preliminary review of cultural resources in the Project Area, Westwood examined the Illinois Inventory of Archaeological Sites (IIAS) and the Historic and Architectural Resources Geographic Information System (HARGIS) maintained by the Illinois SHPO. An initial inventory of archaeological sites and historic structures was compiled. Previous surveys were also examined for insight into the cultural resource potential of the Project Area. Additionally, the National Register of Historic Places (NRHP) database was reviewed. The Project Area was examined, as well as a ¼-mile buffer. No previously recorded cultural resources are present in the Project Area or the ¼-mile buffer based on the review of available data in the IIAS and HARGIS. No NRHP listed properties or historic districts are present within the Project Area or the ¼-mile buffer. No previous cultural resources survey has been conducted within the Project Area."
- b. The petitioner did not provide a copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources. A special condition has been added to ensure compliance.
- (16) Paragraph 6.1.5 L. states: "The PV SOLAR FARM shall be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality."
  - a. The petitioner did not explain mitigating impacts to wildlife in their application.
- Paragraph 6.1.5 M. contains standard conditions for screening and fencing.
   a. Subparagraph 6.1.5 M.(1) requires the PV SOLAR FARM to have perimeter fencing that is at least 7 feet tall, with Knox boxes and keys provided at locked entrances, and a vegetation management plan included in the application to control NOXIOUS WEEDS.
  - (a) The petitioner stated in their application, "The entire Project Premises will be surrounded by a seven-foot-tall standard chainlink fence."
  - (b) The petitioner stated in their application, "The Project will include a visible and lockable manual safety switch, which will be made accessible to first responders, the utility, and maintenance personnel via gate lockbox, code, or other method to be defined prior to construction."
  - (c) The petitioner stated in their application, "To the extent practical, if establishing perennial vegetation and beneficial foraging habitat, the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds."
    - i. A Vegetation Establishment and Management Plan was received on January 10, 2024 which includes information on control of noxious weeds.

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- b. Subparagraph 6.1.5 M.(2) requires a visual screen around the perimeter of the PV SOLAR FARM.
  - (a) Subparagraph 6.1.5 M.(2)a.(a) requires that a visual screen be provided for any part of the PV SOLAR FARM that is visible to and located within 1,000 feet of an existing DWELLING or residential DISTRICT.
    - i. The petitioner stated in their application, "Any part of the facility within 1,000 feet of any Non-Participating residence or Road right-of-way not screened by existing vegetation will be screened by a native scrub screening as shown in Exhibit 5."
    - ii. There are NON-PARTICIPATING residences within 1,000 feet to the southeast.
      - (i) The Screening Plan received January 5, 2024 indicates screening to the south and the north.
- (18) Paragraph 6.1.5 N. contains standard conditions to minimize glare from the PV SOLAR FARM. Subparagraph 6.1.5 N.(1) requires that the design and construction of the PV SOLAR FARM shall minimize glare that may affect adjacent properties and the application shall include an explanation of how glare will be minimized.
  - a. The petitioner stated in the application, "The project will utilize Yaskawa Solectria XGI 1500-250/250-600 photovoltaic modules, which are constructed of anti-reflective coated tempered glass. In addition, the facility will be sited strategically to avoid glint and glare reflection towards adjacent roadways and surrounding areas."
- (19) Paragraph 6.1.5 O. contains standard conditions for the minimum liability insurance for the PV SOLAR FARM.
  - a. The petitioner did not provide insurance information in their application.
- (20) Paragraph 6.1.5 P. contains other standard conditions for operation of the PV SOLAR FARM.
  - a. Subparagraph 6.1.5 P.(1)c. states: "The Application shall explain methods and materials used to clean the PV SOLAR FARM equipment including an estimation of the daily and annual gallons of water used and the source of the water and the management of wastewater. The BOARD may request copies of well records from the Illinois State Water Survey and may require an estimate by a qualified hydrogeologist of the likely impact on adjacent waterwells."

(a) The petitioner did not provide information in their application.

b. Subparagraph 6.1.5 P.(3) states: "The PV SOLAR FARM SPECIAL USE permit application shall include a weed control plan for the total area of the SPECIAL USE permit including areas both inside of and outside of the perimeter fencing. The weed control plan shall ensure the control and/or eradication of NOXIOUS WEEDS consistent with the Illinois Noxious

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Weed Law (505 ILCS 100/1 et seq.). The weed control plan shall be explained in the application.

- (a) The Special Use Permit application received December 15, 2023 states, "the Project shall use native plant species and certified seed mixes that are free from noxious or exotic weed seeds.
  - i. A Vegetation Establishment and Management Plan was received on January 10, 2024 which includes information on control of noxious weeds.
- (b) The Agricultural Impact Mitigation Agreement received with the application on December 15, 2023 contains information on weed control.
- (c) A special condition has been added to ensure compliance.
- c. All other requirements in Paragraph 6.1.5 P. do not have to be submitted as part of the Special Use Permit application; rather, they will be required during construction, operations, and/or decommissioning phases of the project.
- (21) Paragraph 6.1.5 Q. contains standard conditions for a Decommissioning and Site Reclamation Plan for the PV SOLAR FARM and modifies the basic site reclamation requirements in paragraph 6.1.1 A. Compliance with paragraph 6.1.5 Q. can be summarized as follows:
  - a. Subparagraph 6.1.5 Q.(1) of the Ordinance requires a signed Decommissioning and Site Reclamation Plan conforming to the requirements of paragraph 6.1.1 A. of the Ordinance and the remainder of 6.1.5 Q. of the Ordinance. Compliance with the requirements of paragraph
    - 6.1.1 A. of the Ordinance can be summarized as follows:
    - (a) Subparagraph 6.1.1 A.1. of the Ordinance requires the petitioner to submit a Decommissioning and Site Reclamation Plan for consideration by the Board.
      - i. The petitioner included a signed Decommissioning and Site Reclamation Plan with their application received December 15, 2023.
      - ii. A revised DSRP was received on January 5, 2024.
    - (b) Subparagraph 6.1.1 A.2. of the Ordinance requires that the decommissioning and site reclamation plan shall be binding upon all successors of title, lessees, to any operator and/or owner of a NON-ADAPTABLE STRUCTURE, and to all parties to the decommissioning and site reclamation plan. Prior to the issuance of a SPECIAL USE Permit for such NON-ADAPTABLE STRUCTURES, the landowner or applicant shall also record a covenant incorporating the provisions of the decommissioning and site reclamation plan on the deed subject to the LOT, requiring that the reclamation work be performed and that a letter of credit be provided for financial assurance.

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- i. The petitioner's Decommissioning and Site Reclamation Plan received January 5, 2024 states, "The Decommissioning Security will be in the form of an irrevocable letter of credit and an escrow account with the Champaign County Board as a beneficiary per Section 6.1.5 Q(4) of the Solar Ordinance. The County has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits, and the Applicant, its successors in interests, and all parties to decommissioning shall adjust the amount of financial assurance in escrow to ensure that it reflects current and accurate information."
- (c) Subparagraph 6.1.1 A.3. of the Ordinance requires that separate cost estimates for Section 6.1.1 A.4.a., 6.1.1 A.4.b., and 6.1.1 A.4.c. shall be provided by an Illinois Licensed Professional Engineer and are subject to approval of the BOARD.
  - i. The petitioner included cost estimates prepared by an Illinois Licensed Professional Engineer with their Decommissioning and Site Reclamation Plan received January 5, 2024.
- (d) Subparagraph 6.1.1 A.4.d. of the Ordinance requires the Decommissioning and Site Reclamation Plan to provide for provision and maintenance of a letter of credit, as set forth in Section 6.1.1 A.5.
  - i. The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to a Letter of Credit.
- (e) Subparagraph 6.1.1 A.5. of the Ordinance requires submission of an irrevocable letter of credit in the amount of 150% of the cost estimate required by 6.1.1 A.3 prior to issuance of a Zoning Use Permit.
  - i. No specifics were required or submitted regarding the Letter of Credit.
- (f) Subparagraph 6.1.1 A.6. of the Ordinance establishes a time period prior to the expiration of the irrevocable letter of credit during which the Zoning Administrator shall contact the landowner regarding the intent to renew the letter of credit and the landowner shall reply within a certain amount of time.
  - i. No specifics were required or submitted for the Special Use Permit application regarding this requirement.
- (g) Subparagraph 6.1.1 A.7. of the Ordinance establishes 5 factors to be considered in determining if a NON-ADAPTABLE structure (PV SOLAR FARM in this instance) is abandoned in place and 6.1.1 A.9. of the Ordinance establishes 7 conditions when the Zoning Administrator may draw upon the letter of credit and jointly

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these 12 circumstances comprise when the Zoning Administrator may draw upon the letter of credit.

- i. The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to these items.
- (h) All other requirements in Paragraph 6.1.5 Q.(1) do not have to be submitted as part of the Special Use Permit application; rather, they will be required during construction, operations, and/or decommissioning phases of the project.
- b. Subparagraph 6.1.5 Q.(2) of the Ordinance requires that in addition to the costs listed in subparagraph 6.1.1 A.4. of the Ordinance, the decommissioning and site reclamation plan shall also include provisions for anticipated repairs to any public STREET used for the purpose of reclamation of the PV SOLAR FARM and all costs related to removal of access driveways.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes removal of access roads should the landowner require it and includes provisions for repairing public streets.
- c. Subparagraph 6.1.5 Q.(3) of the Ordinance requires the Decommissioning and Site Reclamation Plan to include additional information.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to 6.1.5 Q.(3).
- d. Subparagraph 6.1.5 Q.(4) of the Ordinance requires that the Applicant shall provide financial assurance in the form of an irrevocable letter of credit as required in paragraph 6.1.1 A.5. of the Ordinance. Regarding compliance with this subparagraph:
  - (a) The Letter of Credit must be supplied prior to receiving a Zoning Use Permit.
- e. Subparagraph 6.1.5 Q.(5) of the Ordinance states that in addition to the conditions listed in subparagraph 6.1.1 A.9. the Zoning Administrator may also draw on the funds for a myriad of reasons.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to 6.1.5 Q.(5).
- f. Subparagraph 6.1.5 Q.(6) of the Ordinance states that the Zoning Administrator may, but is not required to, deem the PV SOLAR FARM abandoned, or the standards set forth in Section 6.1.5 Q.(5) met, with respect to some, but not all, of the PV SOLAR FARM. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the PV SOLAR FARM only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining PV SOLAR FARM.
  - (a) The Decommissioning and Site Reclamation Plan received January 5, 2024 includes reference to 6.1.5 Q.(6).

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- g. Subparagraph 6.1.5 Q.(7) of the Ordinance states that the Decommissioning and Site Reclamation Plan shall be included as a condition of approval by the BOARD and the signed and executed irrevocable letter of credit must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval.
  - (a) A special condition has been added to ensure compliance.
- (22) Paragraph 6.1.5 R. contains standard conditions for securing an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
  - a. The petitioner stated in the application, "An Agricultural Impact Mitigation Agreement (Appendix F) has been signed by the applicant and has been submitted to the Illinois Department of Agriculture for signatures."
  - b. No information regarding this standard condition is required as part of the Special Use Permit application unless the Petitioner seeks a waiver of any part or all of this standard condition, and no waiver request has been received. A special condition has been added to ensure compliance.
- (23) Paragraph 6.1.5 S. contains standard conditions for a complaint hotline for complaints related to PV SOLAR FARM construction and ongoing operations.
  - a. No information regarding this standard condition is required as part of the Special Use Permit application unless the Petitioner seeks a waiver of any part or all of this standard condition, and no waiver request has been received. A special condition has been added to ensure compliance.
- (24) Paragraph 6.1.5 T. contains a standard condition stating that the PV SOLAR FARM County Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.
  - a. A special condition has been added to ensure compliance.
- (25) Paragraph 6.1.5 U. contains standard conditions establishing additional requirements for application for a PV SOLAR FARM County Board Special Use Permit that supplement the basic requirements for a special use permit application.
  - a. Subparagraph 6.1.5 U.(1)a. requires a PV SOLAR FARM Project Summary.
    - (a) A Project Description was included with the application received December 15, 2023.
  - b. Subparagraph 6.1.5 U.(1)b. requires the name(s), address(es), and phone number(s) of the Applicant(s), Owner and Operator, and all property owner(s) for the PV SOLAR FARM County Board SPECIAL USE permit.
    - (a) The application received December 15, 2023, demonstrates compliance with this requirement.
  - c. Subparagraph 6.1.5 U.(1)c. requires a site plan for the SOLAR FARM which includes the following:
    - (a) The approximate planned location of all PV SOLAR FARM STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout

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locations, access driveways, solar devices, electrical inverter(s), electrical transformer(s), cabling, switching station, electrical cabling from the PV SOLAR FARM to the Substations(s), ancillary equipment, screening and fencing, third party transmission lines, meteorological station, maintenance and management facilities, and layout of all structures within the geographical boundaries of any applicable setback.

- i. The Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (b) The site plan shall clearly indicate the area of the proposed PV SOLAR FARM County Board SPECIAL USE Permit as required by subparagraph 6.1.5 B.(1).
  - i. The Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.

#### (c) The location of all below-ground wiring.

- i. The Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (d) The location, height, and appearance of all above-ground wiring and wiring structures.
  - i. The Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- (e) The separation of all PV SOLAR FARM structures from adjacent DWELLINGS and/or PRINCIPAL BUILDINGS or uses shall be dimensioned on the approved site plan and that dimension shall establish the effective minimum separation that shall be required for any Zoning Use Permit. Greater separation and somewhat different locations may be provided in the approved site plan for the Zoning Use Permit provided that that the greater separation does not increase the noise impacts and/or glare that were approved in the PV SOLAR FARM County Board SPECIAL USE Permit. PV SOLAR FARM structures includes substations, third party transmission lines, maintenance and management facilities, or other significant structures.
  - i. The Site Plan received January 10, 2024, appears to demonstrate compliance with this requirement.
- d. Subparagraph 6.1.5 U.(1)d. requires submittal of all other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.
  - (a) Compliance with this subparagraph has been shown in previous sections of this Summary of Evidence.
- e. Subparagraph 6.1.5 U.(1)e. requires that the PV SOLAR FARM SPECIAL USE permit application shall include documentation that the applicant has

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provided a complete copy of the SPECIAL USE permit application to any municipality within one-and-one-half miles of the proposed PV SOLAR FARM as required by Section 6.1.5 B.(2)a.(b).

- (a) The Petitioner emailed a copy of the Special Use Permit application to the City of Urbana on December 8, 2023.
- f. Subparagraph 6.1.5 U.(1)f. requires that a municipal resolution regarding the PV SOLAR FARM by any municipality located within one-and-onehalf miles of the PV SOLAR FARM must be submitted to the ZONING ADMINISTRATOR prior to the consideration of the PV SOLAR FARM SPECIAL USE permit by the Champaign County Board or, in the absence of such a resolution, the ZONING ADMINISTRATOR shall provide documentation to the County Board that any municipality within one-andone-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the County Board as required by Section 6.1.5 B.(2)a.(c).
  - (a) Notice of the January 25, 2023 public hearing was sent by P&Z Staff to the City of Urbana on January 10, 2024. City of Urbana staff were also notified of the receipt of the project application on December 20, 2023 by email.
  - (b) No resolution from the City of Urbana has been received as of January 17, 2024.
- g. Subparagraph 6.1.5 U.(1)g. requires that documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM as required by Section 6.1.5 B.(3)b.
  - (a) The petitioner included an application for an interconnection agreement with their Special Use Permit application received December 15, 2023.
  - (b) A special condition has been added to ensure compliance.
- h. Subparagraph 6.1.5 U.(2) requires that the Applicant shall notify the COUNTY of any changes to the information provided above that occurs while the County Board SPECIAL USE permit application is pending.
  (a) No new information has been provided to date.
- i. Subparagraph 6.1.5 U.(2) requires that the Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction.
  - (a) A special condition has been added to ensure compliance.

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- C. Regarding compliance with the Storm Water Management and Erosion Control Ordinance:

   The proposed Special Use is not exempt from the Storm Water Management and Erosion Control Ordinance. A Storm Water Drainage Plan and detention basin will be required if more than 16% of the subject property is impervious area, including gravel, buildings, and solar array rack posts.
  - (2) Regarding the SWMEC requirement to protect agricultural field tile, see the review of compliance with paragraph 6.1.5 F. that contains standard conditions to mitigate damage to farmland.
- D. Regarding the Special Flood Hazard Areas Ordinance, no part of the subject property is located within a Special Flood Hazard Area.
- E. Regarding the Subdivision Regulations, the subject property is located in City of Urbana's subdivision jurisdiction and appears to be in compliance.
- F. Regarding the requirement that the Special Use preserve the essential character of the AG-2 Agriculture Zoning District:
  - (1) The proposed use is a PV SOLAR FARM that is consistent with the essential character of the AG-2 Agriculture District because it is only authorized in the AG-1 and AG-2 Districts.
- G. The proposed Special Use must comply with the Illinois Accessibility Code, which is not a County ordinance or policy and the County cannot provide any flexibility regarding that Code. A Zoning Use Permit cannot be issued for any part of the proposed Special Use until full compliance with the Illinois Accessibility Code has been indicated in drawings.

# GENERALLY REGARDING WHETHER THE SPECIAL USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE

- 10. Regarding the *Zoning Ordinance* requirement that the proposed Special Use is in harmony with the general intent and purpose of the Ordinance:
  - A. A PV SOLAR FARM may be authorized by the County Board in the AG-1 or AG-2 Agriculture Zoning Districts as a Special Use provided all other zoning requirements and standard conditions are met or waived.
    - (1) A proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Waivers of standard conditions are subject to the following findings:
      - a. that the waiver is in accordance with the general purpose and intent of the ordinance; and
      - b. that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.
  - B. See Section 15 for a summary of evidence regarding whether any requested waiver of standard conditions will be in harmony with the general intent and purpose of the Ordinance.

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- C. Regarding whether the proposed Special Use Permit is in harmony with the general intent of the Zoning Ordinance:
  - (1) Subsection 5.1.2 of the Ordinance states the general intent of the AG-2 District and states as follows (capitalized words are defined in the Ordinance):

The AG-2 Agriculture DISTRICT is intended to prevent scattered indiscriminate urban development and to preserve the AGRICULTURAL nature within areas which are predominately vacant and which presently do not demonstrate any significant potential for development. This DISTRICT is intended generally for application to areas within one and one-half miles of existing communities in the COUNTY.

- (2) The types of uses authorized in the AG-2 District are in fact the types of uses that have been determined to be acceptable in the AG-2 District. Uses authorized by Special Use Permit are acceptable uses in the districts provided that they are determined by the ZBA to meet the criteria for Special Use Permits established in paragraph 9.1.11 B. of the Ordinance.
- (3) Paragraph 2.0(a) of the Ordinance states that one purpose of the Ordinance is securing adequate light, pure air, and safety from fire and other dangers.

This purpose is directly related to the limits on building coverage and the minimum yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those requirements.

- (4) Paragraph 2.0(b) of the Ordinance states that one purpose of the Ordinance is conserving the value of land, BUILDINGS, and STRUCTURES throughout the COUNTY.
  - a. Regarding the value of nearby properties, it is not clear whether the proposed Special Use will have any impact on the value of nearby properties without a formal real estate appraisal, which has not been requested nor provided, and so any discussion of values is necessarily general.
  - b. Regarding the value of the subject property, it also is not clear if the requested Special Use Permit would have any effect.
    - (a) If the petitioner is denied the special use permit, the property can still be used for agricultural production.
  - c. Section 6.1.5 Q. of the PV SOLAR FARM text amendment approved on August 23, 2018, includes a standard condition requiring a Decommissioning and Site Reclamation Plan that is intended to ensure there is adequate financial assurance for removal of a PV SOLAR FARM at the end of its useful life. Ensuring adequate site reclamation is one method of protecting surrounding property values.
- (5) Paragraph 2.0(c) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding congestion in the public STREETS.

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Other than additional traffic during construction and/or decommissioning of the PV SOLAR FARM, no significant increase in traffic is anticipated.

- (6) Paragraph 2.0(d) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding the hazards to persons and damage to PROPERTY resulting from the accumulation of runoff from storm or flood waters.
  - a. The requested Special Use Permit is not in a Special Flood Hazard Area.
  - b. The proposed Special Use is not exempt from the *Storm Water Management and Erosion Control Ordinance*. A Storm Water Drainage Plan and detention basin will be required if more than 16% of the subject property is impervious area, including gravel, buildings, and solar array rack posts.
- (7) Paragraph 2.0(e) of the Ordinance states that one purpose of the Ordinance is promoting the public health, safety, comfort, morals, and general welfare.
  - a. In regards to public safety, this purpose is similar to the purpose established in paragraph 2.0 (a) and is in harmony to the same degree.
  - b. In regards to public comfort and general welfare, this purpose is similar to the purpose of conserving property values established in paragraph 2.0 (b) and is in harmony to the same degree.
- (8) Paragraph 2.0 (f) states that one purpose of the Ordinance is regulating and limiting the height and bulk of BUILDINGS and STRUCTURES hereafter to be erected; and paragraph 2.0 (g) states that one purpose is establishing, regulating, and limiting the BUILDING or SETBACK lines on or along any STREET, trafficway, drive or parkway; and paragraph 2.0 (h) states that one purpose is regulating and limiting the intensity of the USE of LOT AREAS, and regulating and determining the area of OPEN SPACES within and surrounding BUILDINGS and STRUCTURES.

These three purposes are directly related to the limits on building height and building coverage and the minimum setback and yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those limits.

(9) Paragraph 2.0(i) of the Ordinance states that one purpose of the Ordinance is classifying, regulating, and restricting the location of trades and industries and the location of BUILDINGS, STRUCTURES, and land designed for specified industrial, residential, and other land USES; and paragraph 2.0(j.) states that one purpose is dividing the entire COUNTY into DISTRICTS of such number, shape, area, and such different classes according to the USE of land, BUILDINGS, and STRUCTURES, intensity of the USE of LOT AREA, area of OPEN SPACES, and other classification as may be deemed best suited to carry out the purpose of the ordinance; and paragraph 2.0(k) states that one purpose is fixing regulations and standards to which BUILDINGS, STRUCTURES, or USES therein shall conform; and paragraph 2.0(l) states that one purpose is prohibiting USES, BUILDINGS, OR STRUCTURES incompatible with the character of such DISTRICT.

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	Harmony with these four purposes requires that the special conditions of approval sufficiently mitigate or minimize any incompatibilities between the proposed Special Use Permit and adjacent uses, and that the special conditions adequately mitigate nonconforming conditions.
(10)	Paragraph 2.0(m) of the Ordinance states that one purpose of the Ordinance is preventing additions to and alteration or remodeling of existing BUILDINGS, STRUCTURES, or USES in such a way as to avoid the restrictions and limitations lawfully imposed under this ordinance.
	This purpose is not relevant to the proposed Special Use Permit because it relates to nonconforming buildings, structures, or uses that existed on the date of the adoption of the Ordinance and no structures exist on the subject property.
(11)	Paragraph 2.0(n) of the Ordinance states that one purpose of the Ordinance is protecting the most productive AGRICULTURAL lands from haphazard and unplanned intrusions of urban USES.
	The subject property is located in the AG-2 Agriculture District and the proposed project is not an urban USE.
(12)	Paragraph 2.0(o) of the Ordinance states that one purpose of the Ordinance is protecting natural features such as forested areas and watercourses.
	The petitioners requested a natural resource review from the Illinois Department of Natural Resources EcoCAT tool. The review identified no protected resources that might be in the vicinity of the proposed PV Solar Farm. No further action is required by IDNR regarding natural resources.

(13) Paragraph 2.0(p) of the Ordinance states that one purpose of the Ordinance is encouraging the compact development of urban areas to minimize the cost of development of public utilities and public transportation facilities.

The subject property is located in the AG-2 Agriculture District and does not require additional public utilities or transportation facilities.

(14) Paragraph 2.0(q) of the Ordinance states that one purpose of the Ordinance is encouraging the preservation of AGRICULTURAL belts surrounding urban areas, to retain the AGRICULTURAL nature of the COUNTY, and the individual character of existing communities.

The subject property is located in the AG-2 Agriculture District and a PV SOLAR FARM is typically located in a rural setting.

(15) Paragraph 2.0(r) of the Ordinance states that one purpose of the Ordinance is to provide for the safe and efficient development of renewable energy sources in those parts of the COUNTY that are most suited to their development.

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The entire project area is located in an Agriculture zoning district, which is the only zoning DISTRICT in which a PV SOLAR FARM is authorized.

## GENERALLY REGARDING WHETHER THE SPECIAL USE IS AN EXISTING NONCONFORMING USE

11. The proposed Special Use is not an existing NONCONFORMING USE.

## RELATED TO THE WAIVERS, GENERALLY REGARDING SPECIAL CONDITIONS THAT MAY BE PRESENT

- 12. Generally regarding the Zoning Ordinance requirement of a finding that special conditions and circumstances exist which are peculiar to the land or structure involved which are not applicable to other similarly situated land or structures elsewhere in the same district:
  - A. Regarding Part A of the proposed waivers, for a separation distance of less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality:
    - (1) The City of Urbana is aware of the proposed project and in an email received January 9, 2024 from Kevin Garcia, they stated they have no issue with plans to develop these sites as solar farms.
  - B. Regarding Part B of the proposed waivers, for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board:
    - (1) The petitioner is working with relevant jurisdictions to receive either an agreement or a waiver from this requirement.
    - (2) A special condition has been added requiring the applicant to submit a Roadway Upgrade and Maintenance Agreement or waiver therefrom and approved by ELUC at the time of application for a Zoning Use Permit.

## RELATED TO THE WAIVERS, GENERALLY REGARDING ANY PRACTICAL DIFFICULTIES OR HARDSHIPS RELATED TO CARRYING OUT THE STRICT LETTER OF THE ORDINANCE

- 13. Generally regarding the Zoning Ordinance requirement of a finding that practical difficulties or hardships related to carrying out the strict letter of the regulations sought to be varied prevent reasonable and otherwise permitted use of the land or structures or construction on the lot:
  - A. Without Part A of the proposed waivers for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality, the PV SOLAR FARM could not be located on the subject property.
  - B. Without Part B of the proposed waivers for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, the Special Use Permit process might have to be extended in order to have sufficient time to prepare these documents.

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## PRELIMINARY DRAFT

#### RELATED TO THE WAIVERS, GENERALLY PERTAINING TO WHETHER OR NOT THE PRACTICAL DIFFICULTIES OR HARDSHIPS RESULT FROM THE ACTIONS OF THE APPLICANT

- 14. Generally regarding the Zoning Ordinance requirement for a finding that the special conditions, circumstances, hardships, or practical difficulties do not result from the actions of the Applicant:
  - A. Regarding Part A of the proposed waivers for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality:
    - (1) The petitioners were made aware of this separation requirement when they applied for the Special Use Permit.
  - B. Regarding Part B of the proposed waivers, for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board:
    - (1) The petitioner is working with relevant jurisdictions to receive either an agreement or a waiver from this requirement.

## GENERALLY PERTAINING TO WHETHER OR NOT THE WAIVERS ARE IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE

- 15. Regarding the *Zoning Ordinance* requirement that the waivers of standard conditions of the Special Use will be in harmony with the general purpose and intent of the ordinance:
  - A. Regarding Part A of the proposed waivers, for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality, the requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
  - B. Regarding Part B of the proposed waivers, entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board: the requested waiver (variance) is 0% of the minimum required, for a variance of 100%.

## RELATED TO THE WAIVERS, GENERALLY PERTAINING TO THE EFFECTS OF THE REQUESTED WAIVERS ON THE NEIGHBORHOOD AND THE PUBLIC HEALTH, SAFETY, AND WELFARE

- 16. Regarding the Zoning Ordinance requirement for a finding that the granting of the waiver (variance) will not be injurious to the neighborhood, or otherwise detrimental to the public health, safety, or welfare:
  - A. City of Urbana, IDOT, and Urbana Township have been notified of this case.
    - (1) In an email received January 9, 2024, Kevin Garcia with the City of Urbana said the City has no issue with plans to develop these sites as solar farms.
  - B. The Philo Fire Protection District has been notified of this case, and no comments have been received.
  - C. Drainage Districts have been notified of this case. The attorney for both Drainage Districts said there are no District tiles located onsite.

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D. Considerations of public health, safety, and welfare for the proposed special use are discussed under Item 8 and are also applicable to the proposed waivers.

#### GENERALLY REGARDING PROPOSED SPECIAL CONDITIONS OF APPROVAL

17. Regarding proposed special conditions of approval:

Α.

- The approved site plan consists of the following documents:
  - Site Plan received January 10, 2024.

The special condition stated above is required to ensure the following: The constructed PV SOLAR FARM is consistent with the special use permit approval.

B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.

The special condition stated above is required to ensure the following: That exterior lighting for the proposed Special Use meets the requirements established for Special Uses in the Zoning Ordinance.

C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.

The special condition stated above is required to ensure the following: That the proposed Special Use meets applicable state requirements for accessibility.

D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.

The special condition stated above is required to ensure the following: That the land affected by PV SOLAR FARM is restored to its preconstruction capabilities.

E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

The special condition stated above is required to ensure the following:

The Special Use Permit complies with Ordinance requirements and as authorized by waiver.

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## PRELIMINARY DRAFT

F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.

The special condition stated above is required to ensure the following: To ensure full compliance with the intent of the Zoning Ordinance in a timely manner that meets the needs of the applicant.

- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).
  - 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
  - 7. The telephone number for the complaint hotline required by 6.1.5 S.
  - 8. Any updates to the approved Site Plan from Case 127-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.
  - 9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed consistent with the Special Use Permit approval and in compliance with the Ordinance requirements.

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- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:
  - 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
  - 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
  - 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.

The special condition stated above is required to ensure the following:

The PV SOLAR FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).
  - 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).
  - 4. Maintain a current general liability policy as required by 6.1.5 O.
  - 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
  - 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.
  - 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.

The special condition stated above is required to ensure the following:

Future requirements are clearly identified for all successors of title, lessees, any operator and/or owner of the PV SOLAR FARM.

J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed in compliance with the Ordinance requirements.

K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

The special condition stated above is required to ensure the following: Conformance with Policy 4.2.3 of the Land Resource Management Plan.

L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

The special condition stated above is required to ensure the following: That drainage district tiles are protected.

M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The special condition stated above is required to ensure the following: That the current version of the Zoning Ordinance has been referenced.

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# **DOCUMENTS OF RECORD**

- 1. Special Use Permit Application received December 15, 2023, with attachments:
  - A Site Plan
  - B Supplemental Application Information, including:
    - Project Description
    - Decommissioning and Site Reclamation Plan
    - Agricultural Impact Mitigation Agreement
    - Interconnection application
    - Exhibit 1: Project location and USGS topography
    - Exhibit 2: Water resources
    - Exhibit 3: Scenic and Conservation Areas
    - Exhibit 4: Drain Tile Location Map
    - Exhibit 5: Setbacks and Parcels
    - Exhibit 6: Screening Plan
- 2. Natural Resource Report by the Champaign County Soil and Water Conservation District received November 28, 2023
- 3. Revised Site Plan received December 20, 2023
- 4. Email from Matthew Vollbrecht received January 5, 2024, with attachments:
  - Revised Screening Plan
  - Revised Decommissioning and Site Reclamation Plan received January 5, 2024
- 5. Email from Matthew Vollbrecht received January 9, 2024, with attachment:
  - Drainage District tile locations provided by Byron Balbach, Attorney for Silver Creek Drainage District and Drainage District #3 of the Town of St. Joseph
- 6. Email from Kevin Garcia, City of Urbana, received January 9, 2024
- 7. Email from Matthew Vollbrecht received January 9, 2024, with attachments:
  - Revised Site Plan
  - Vegetation Establishment and Management Plan
- 8. Preliminary Memorandum dated January 17, 2024, with attachments:
  - A Case Maps (Location Map, Land Use, and Zoning)
  - B1 Revised Site Plan Site 1 received January 10, 2024
  - B2 Revised Site Plan Site 2 received January 10, 2024
  - C Project Description received December 15, 2023
  - D Exhibits from Special Use Permit application received December 15, 2023
  - E Agricultural Impact Mitigation Agreement received December 15, 2023
  - F Interconnection application received December 15, 2023
  - G Inverter spec sheet downloaded December 20, 2023
  - H Solar Module spec sheet downloaded December 20, 2023
  - II Decommissioning and Site Reclamation Plan for Site 1 received January 5, 2024
  - I2 Decommissioning and Site Reclamation Plan for Site 2 received January 5, 2024

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# PRELIMINARY DRAFT

- J Vegetation Establishment and Management Plan received January 10, 2024
- K Email from Matthew Vollbrecht received January 9, 2024, with attachment:
  - Drainage District tile locations provided by Byron Balbach, Attorney for Silver Creek Drainage District and Drainage District #3 of the Town of St. Joseph
- L Email from Kevin Garcia, City of Urbana, received January 9, 2024
- M Natural Resource Report by the Champaign County Soil and Water Conservation District received November 28, 2023
- N Site visit images taken January 3, 2024
- O Case 126-S-23 Summary of Evidence, Summary Finding of Fact and Final Determination dated January 25, 2024
- P Case 127-S-23 Summary of Evidence, Summary Finding of Fact and Final Determination dated January 25, 2024

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# FINDINGS OF FACT

From the documents of record and the testimony and exhibits received at the public hearing for zoning case **127-S-23** held on **January 25, 2024**, the Zoning Board of Appeals of Champaign County finds that:

- 1. The requested Special Use Permit *{IS / IS NOT}* necessary for the public convenience at this location because:
  - a. The State of Illinois has adopted a Renewable Portfolio Standard that established a goal of 25% of the State's energy coming from renewable sources by the year 2025.
  - b. The Illinois Future Energy Jobs Act requires installation of 3,000 MW of new solar capacity by the year 2030.
- 2. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN}* is so designed, located, and proposed to be operated so that it *{WILL NOT / WILL}* be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare because:
  - a. The street has {*ADEQUATE / INADEQUATE*} traffic capacity and the entrance location has {*ADEQUATE / INADEQUATE*} visibility.
  - b. Emergency services availability is {ADEQUATE / INADEQUATE} {because\*}:
    - a. The subject property is approximately 5.7 miles from the Philo fire station.
    - b. The Philo Fire Protection District was notified of this case and no comments have been received.
  - c. The Special Use {WILL / WILL NOT} be compatible with adjacent uses {because\*}:
     a. The proposed project is surrounded by land in agricultural production to the west, east, and south and by a substation and vacant parcel that are within the City of Urbana to the north.
    - b. The nearest residence is about 920 feet from the PV SOLAR FARM fenced area.
  - d. Surface and subsurface drainage will be {ADEQUATE / INADEQUATE} {because\*}:
     a. No part of the subject property is in the Special Flood Hazard Area.
    - b. The proposed project must comply with the Storm Water Management and Erosion Control Ordinance.
  - e. Public safety will be {ADEQUATE / INADEQUATE} {because\*}:
    - a. Relevant jurisdictions were notified of this case, and no comments have been received.
  - f. The provisions for parking will be {ADEQUATE / INADEQUATE} {because\*}: a. No parking is required for a PV SOLAR FARM.
  - g. The property *{IS/IS NOT}* WELL SUITED OVERALL for the proposed improvements *{because\*}:* 
    - a. The site is reasonably well-suited in all respects and has no major defects.

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## PRELIMINARY DRAFT

- h. Existing public services *{ARE/ARE NOT}* available to support the proposed SPECIAL USE without undue public expense *{because\*}*:
  - a. No additional public services are necessary for the proposed development.
- i. Existing public infrastructure together with the proposed development *{IS/IS NOT}* adequate to support the proposed development effectively and safely without undue public expense *{because\*}*:
  - a. No new public infrastructure is required for the proposed development.

(Note the Board may include other relevant considerations as necessary or desirable in each case.) \*The Board may include additional justification if desired, but it is not required.

- 3a. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}* conform to the applicable regulations and standards of the DISTRICT in which it is located, subject to approval of the requested waivers.
- 3b. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}* preserve the essential character of the DISTRICT in which it is located because:
  - a. The Special Use will be designed to *{CONFORM / NOT CONFORM}* to all relevant County ordinances and codes.
  - b. The Special Use *{WILL / WILL NOT}* be compatible with adjacent uses.
  - c. Public safety will be *{ADEQUATE / INADEQUATE}*.
- 4. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {IS / IS NOT}* in harmony with the general purpose and intent of the Ordinance because:
  - a. The Special Use is authorized in the District.
  - b. The requested Special Use Permit *{IS/ IS NOT}* necessary for the public convenience at this location.
  - c. The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN}* is so designed, located, and proposed to be operated so that it *{WILL / WILL NOT}* be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare.
  - **d.** The requested Special Use Permit *{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}* preserve the essential character of the DISTRICT in which it is located.
- 5. The requested Special Use **IS NOT** an existing nonconforming use.
- 6. Regarding necessary waivers of standard conditions:

Per Section 7.15 of the Champaign County ZBA Bylaws, "waivers may be approved individually or *en masse* by the affirmative vote of a majority of those members voting on the issue, and shall be incorporated into the Findings of Fact with the reason for granting each waiver described."

A. Regarding Part A of the proposed waivers, for locating the PV Solar Farm less than onehalf mile from an incorporated municipality and within the contiguous urban growth area of a municipality:

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- (1) The waiver *{IS/ IS NOT}* in accordance with the general purpose and intent of the Zoning Ordinance and *{WILL/ WILL NOT}* be injurious to the neighborhood or to the public health, safety, and welfare because:
  - a. The requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
  - b. Relevant jurisdictions have been notified of this case. The City of Urbana stated they have no issue with plans to develop these sites as solar farms.
  - c. Neighboring landowners have been notified of this case, and no comments have been received.
- (2) Special conditions and circumstances *{DO / DO NOT}* exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:
  - a. The City of Urbana is aware of the proposed project and in an email received January 9, 2024 from Kevin Garcia, they stated they have no issue with plans to develop these sites as solar farms.
- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied *{WILL / WILL NOT}* prevent reasonable or otherwise permitted use of the land or structure or construction because:
  - a. Without the proposed waiver, the PV SOLAR FARM could not be located on the subject property.
- (4) The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because:
  - a. The petitioners were made aware of this separation requirement when they applied for the Special Use Permit.
- (5) The requested waiver {SUBJECT TO THE PROPOSED SPECIAL CONDITION} {IS / IS NOT} the minimum variation that will make possible the reasonable use of the land/structure because:
  - a. Without the proposed waiver, the PV SOLAR FARM could not be located on the subject property.
- B. Regarding Part B of the proposed waivers, for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board:
  - (1) The waiver *{IS/ IS NOT}* in accordance with the general purpose and intent of the Zoning Ordinance and *{WILL/ WILL NOT}* be injurious to the neighborhood or to the public health, safety, and welfare because:
    - a. The requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
    - b. A special condition has been added requiring this information prior to approval of a Zoning Use Permit.
  - (2) Special conditions and circumstances *{DO / DO NOT}* exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:

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# PRELIMINARY DRAFT

- a. The petitioner is working with relevant jurisdictions to receive either an agreement or a waiver from this requirement.
- b. A special condition has been added requiring this information prior to approval of a Zoning Use Permit.
- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied *{WILL / WILL NOT}* prevent reasonable or otherwise permitted use of the land or structure or construction because:
  - a. Without the proposed waiver, the Special Use Permit process might have to be extended in order to have sufficient time to prepare this document.
- (4) The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because:
  - a. The petitioner is working to receive either an agreement or a waiver from relevant jurisdictions.
- (5) The requested waiver {SUBJECT TO THE PROPOSED SPECIAL CONDITION} {IS / IS NOT} the minimum variation that will make possible the reasonable use of the land/structure because:
  - a. Roadway agreements take time to establish and that timeframe is not entirely in the control of the petitioner.
- 7. {NO SPECIAL CONDITIONS ARE HEREBY IMPOSED / <u>THE SPECIAL CONDITIONS</u> <u>IMPOSED HEREIN ARE REQUIRED TO ENSURE COMPLIANCE WITH THE CRITERIA</u> <u>FOR SPECIAL USE PERMITS AND FOR THE PARTICULAR PURPOSES DESCRIBED</u> <u>BELOW</u>:
  - A. The approved site plan consists of the following documents:
    - Site Plan received January 10, 2024.

The special condition stated above is required to ensure the following:

The constructed PV SOLAR FARM is consistent with the special use permit approval.

B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.

The special condition stated above is required to ensure the following:

That exterior lighting for the proposed Special Use meets the requirements established for Special Uses in the Zoning Ordinance.

C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.

The special condition stated above is required to ensure the following:

That the proposed Special Use meets applicable state requirements for accessibility.

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D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.

The special condition stated above is required to ensure the following: That the land affected by PV SOLAR FARM is restored to its preconstruction capabilities.

E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

The special condition stated above is required to ensure the following:

The Special Use Permit complies with Ordinance requirements and as authorized by waiver.

F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.

The special condition stated above is required to ensure the following:

To ensure full compliance with the intent of the Zoning Ordinance in a timely manner that meets the needs of the applicant.

- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.

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#### PRELIMINARY DRAFT

- 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).
- 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
- 7. The telephone number for the complaint hotline required by 6.1.5 S.
- 8. Any updates to the approved Site Plan from Case 126-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.
- 9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed consistent with the Special Use Permit approval and in compliance with the Ordinance requirements.

- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:
  - 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
  - 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
  - 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.

The special condition stated above is required to ensure the following:

The PV SOLAR FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).

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- 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).
- 4. Maintain a current general liability policy as required by 6.1.5 O.
- 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
- 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.
- 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.

The special condition stated above is required to ensure the following: Future requirements are clearly identified for all successors of title, lessees, any operator and/or owner of the PV SOLAR FARM.

J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

The special condition stated above is required to ensure the following: The PV SOLAR FARM is constructed in compliance with the Ordinance requirements.

K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

The special condition stated above is required to ensure the following: Conformance with Policy 4.2.3 of the Land Resource Management Plan.

L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

The special condition stated above is required to ensure the following: That drainage district tiles are protected.

M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The special condition stated above is required to ensure the following: That the current version of the Zoning Ordinance has been referenced.

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## FINAL DETERMINATION

The Champaign County Zoning Board of Appeals finds that, based upon the application, testimony, and other evidence received in this case, that the requirements for approval of Section 9.1.11B. {*HAVE / HAVE NOT*} been met, and pursuant to the authority granted by Section 9.1.6 B. of the Champaign County Zoning Ordinance, recommends that:

The Special Use requested in Case **127-S-23** is hereby *{GRANTED/GRANTED WITH SPECIAL CONDITIONS / DENIED}* to the applicant, **FFP IL Community Solar**, to authorize the following as a Special Use on land in the AG-2 Agriculture Zoning District:

Authorize a Community PV Solar Farm with a total nameplate capacity of 2.5 megawatts (MW), including access roads and wiring, and

*{SUBJECT TO THE FOLLOWING WAIVERS OF STANDARD CONDITIONS:}* 

- Part A: A waiver for locating the PV Solar Farm less than one-half mile from an incorporated municipality and within the contiguous urban growth area of a municipality per Section 6.1.5 B.(2)a.(a).
- Part B: A waiver for entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority at a later time in lieu of prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.

#### { SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS: }

- A. The approved site plan consists of the following documents:
  - Site Plan received January 10, 2024.
- B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.
- C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.
- D. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioner submits a copy of an executed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture per the requirements established in Paragraph 6.1.5 R. of the Zoning Ordinance.
- E. A signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

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- F. A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the City of Urbana and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.
- G. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:
  - 1. Documentation of the solar module's unlimited 10-year warranty and the 25year limited power warranty.
  - 2. Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.
  - 3. An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's or a rating of "A-" by Kroll's within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
  - 4. A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - 5. Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).
  - 6. A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.
  - 7. The telephone number for the complaint hotline required by 6.1.5 S.
  - 8. Any updates to the approved Site Plan from Case 126-S-23 per the Site Plan requirements provided in Section 6.1.5 U.1.c.
  - 9. A copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.
- H. A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:
  - 1. An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from

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## PRELIMINARY DRAFT

the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.

- 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.
- 3. An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.
- I. The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:
  - 1. Maintain the pollinator plantings in perpetuity.
  - 2. Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).
  - 3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).
  - 4. Maintain a current general liability policy as required by 6.1.5 O.
  - 5. Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.
  - 6. Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.
  - 7. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.
- J. The PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.
- K. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.
- L. A 5 feet deep open trench shall extend for 30 feet on either side of any Drainage District drainageway that is crossed with underground wiring and the relevant Drainage District shall be provided 48 hours in which to inspect for tile and the positions of any tile lines that are discovered shall be recorded using Global Positioning System (GPS) technology.

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# M. The terms of approval are the requirements of the current Section 6.1.5 of the Zoning Ordinance as amended February 23, 2023.

The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

SIGNED:

Ryan Elwell, Chair Champaign County Zoning Board of Appeals

ATTEST:

Secretary to the Zoning Board of Appeals

Date