

## **CASE 074-S-22**

*PRELIMINARY MEMORANDUM  
DECEMBER 20, 2022*

**Petitioner:** Medanos Solar LLC, via agent Kiera Gavin

**Request:** Authorize a Community PV Solar Farm with a total nameplate capacity of 5 megawatts (MW), including access roads and wiring, in the AG-1 and AG-2 Agriculture Zoning Districts, and including the following waivers of standard conditions:

Part A: A waiver for a distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 feet), per Section 6.1.5 B.(2)a. of the Zoning Ordinance.

Part B: A waiver for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer prior to consideration of the Special Use Permit by the Board, per Section 6.1.1 A.3. of the Zoning Ordinance.

Part C: A waiver for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.

Part D: A waiver for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 K. of the Zoning Ordinance.

Part E: A waiver for a separation distance of 115 feet between the solar inverters and the perimeter fence in lieu of the minimum required 275 feet, per Section 6.1.5 D.(6).

Other waivers may be necessary.

**Location:** A 48.64-acre tract in the Southeast Quarter of the Southwest Quarter and the Southwest Quarter of the Southeast Quarter and part of a 197.02-acre tract in the east half of Section 4, Township 18 North, Range 14 West of the Second Principal Meridian in South Homer Township, and commonly known as farmland owned by Terry Wolf on the north side of CR 1100N (County Highway 15) northeast of the Village of Homer, Illinois.

**Site Area:** 245.66 acres (46.4 acre fenced solar farm area)

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

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

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## BACKGROUND

The petitioner would like to construct a 5-megawatt Community PV Solar Farm on approximately 46.4 acres on two tracts totaling 245.66 acres in unincorporated Champaign County and one 8.78-acre tract within the Village of Homer to be used only for an access drive. The petitioner also requests 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 properties are located adjacent to the Village of Homer, a municipality with zoning. Municipalities with zoning are notified of Special Use Permit cases, but do not have protest rights in these cases. The Village of Homer does not have a one and one-half mile extra-territorial jurisdiction because it does not have a Comprehensive Plan.

The subject property is located within South Homer 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

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

Direction	Land Use	Zoning
Onsite	Agriculture	AG-1 Agriculture and AG-2 Agriculture
North	Agriculture	AG-1 Agriculture
West	Agriculture	AG-1 Agriculture & AG-2 Agriculture and Part in the Village of Homer
East	Agriculture	Vermilion County
South	Agriculture, Residential	AG-2 Agriculture and Part in the Village of Homer

## WAIVER PART A: DISTANCE FROM MUNICIPAL LIMITS

Waiver Part A is necessary because the proposed project is adjacent to the Village of Homer. A parcel within the Village will have the access drive to the PV Solar Farm, and the subject properties in County zoning jurisdiction are adjacent to the Village.

In an email received December 12, 2022, Village of Homer Mayor Jim White expressed support for the proposed project on behalf of the Village of Homer Board of Trustees.

## WAIVER PART B: DECOMMISSIONING AND SITE RECLAMATION PLAN

Waiver Part B is necessary because the petitioners have not yet submitted their Decommissioning and Site Reclamation Plan (DSRP) with cost estimates, which is required as part of the Special Use Permit approval process. The waiver still requires the DSRP, but it allows the petitioner to provide it

at a later time. Once submitted, the DSRP must be approved by the Environment and Land Use Committee (ELUC) before a Zoning Use Permit can be authorized for construction of the PV Solar Farm.

### **WAIVER PART C: ROADWAY UPGRADE AND MAINTENANCE AGREEMENT**

Waiver Part C is necessary because the petitioner does not yet have a Roadway Upgrade and Maintenance Agreement or waiver therefrom from the Village of Homer, which is required as part of the Special Use Permit approval process. An agreement or waiver is required for any roads that will be used as a haul route for PV Solar Farm equipment. The petitioners already received a waiver from this requirement from the Champaign County Highway Department.

### **WAIVER PART D: CONSULTATION BY STATE HISTORIC PRESERVATION OFFICE**

Waiver Part D is necessary because the petitioner has not yet received clearance regarding natural resources from the Illinois Department of Natural Resources State Historic Preservation Office, which is required as part of the Special Use Permit approval process. The IDNR SHPO has been experiencing a backlog that is beyond the control of the petitioner.

### **WAIVER PART E: DISTANCE FROM INVERTERS TO FENCE**

Waiver Part E was added after publication of the legal advertisement. The petitioners originally had the inverters 275 feet from the south fence, but the Village of Homer requested that the south fence line be moved farther north, which triggered the need for this waiver. The petitioners considered moving the inverters farther north to meet this requirement but determined that they have been moved as far north as the project allows.

### **NOISE ANALYSIS**

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. The proposed project size is considered to be a Community PV Solar Farm and therefore a noise analysis is not required unless the ZBA requires one. The ZBA should carefully consider whether a noise analysis is required due to the proximity to the Village of Homer.

### **PROPOSED SPECIAL CONDITIONS**

- A. **The approved site plan consists of the following documents:**
- **Revised Site Plan received November 21, 2022.**

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. *(Note: not needed if a waiver is received)* **A Roadway Upgrade and Maintenance Agreement signed by the Village of Homer 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. *(Note: not needed if a waiver is received)* **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. **An agency action report from the State Historic Preservation Office regarding historic and archaeological resources review, as required by 6.1.5 K.**
8. **The telephone number for the complaint hotline required by 6.1.5 S.**
9. **Any updates to the approved Site Plan from Case 074-S-22 per the Site Plan requirements provided in Section 6.1.5 U.1.c.**

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.**

4. **The petitioners will ensure that the part of the PV solar farm that is inside the Village of Homer has proper municipal zoning for that use.**

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.**

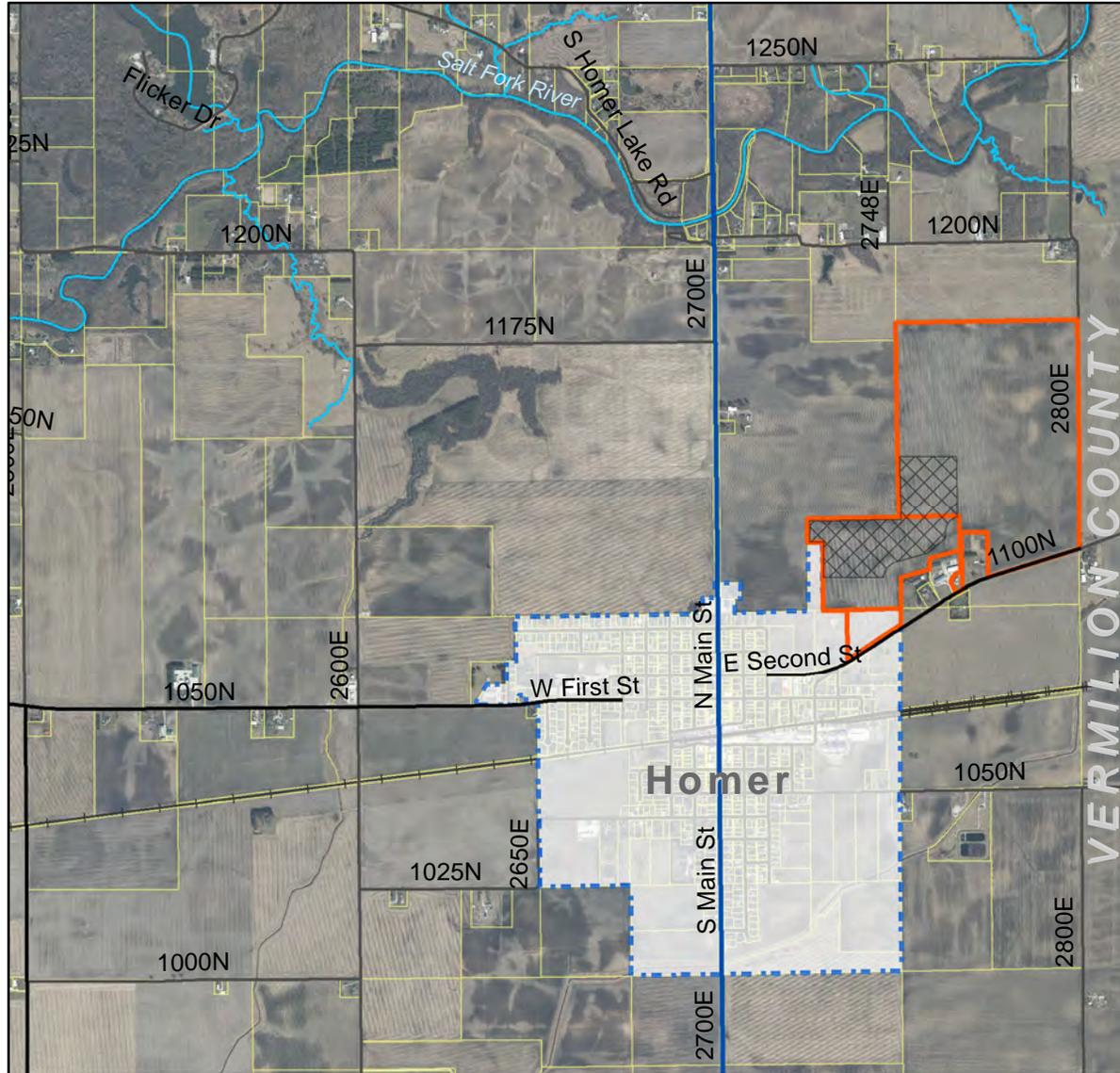
## **ATTACHMENTS**

- A Case Maps (Location Map, Land Use, and Zoning)
- B Revised Site Plan received November 21, 2022
- C Constraints Map received September 19, 2022
- D Solar Overview received September 19, 2022
- E Construction Overview received September 19, 2022
- F O&M Overview, including Landscape and Weed Control Plan received September 19, 2022
- G Decommissioning Plan received September 19, 2022
- H IDNR EcoCAT consultation received September 19, 2022
- I Proof of Interconnection Application received September 19, 2022
- J Inverter specification sheet received September 19, 2022
- K Panel cleaning overview received September 19, 2022
- L Vegetation Management Plan received November 21, 2022
- M Natural Resource Report by the Champaign County Soil and Water Conservation District received November 22, 2022
- N Email from Jeff Blue, County Highway Engineer, received November 29, 2022
- O Email from Jim White, Homer Village Mayor, received December 12, 2022
- P Site visit images taken September 21, 2022
- Q Summary of Evidence, Summary Finding of Fact and Final Determination dated December 29, 2022

# Location Map

Case 074-S-22  
December 29, 2022

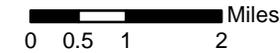
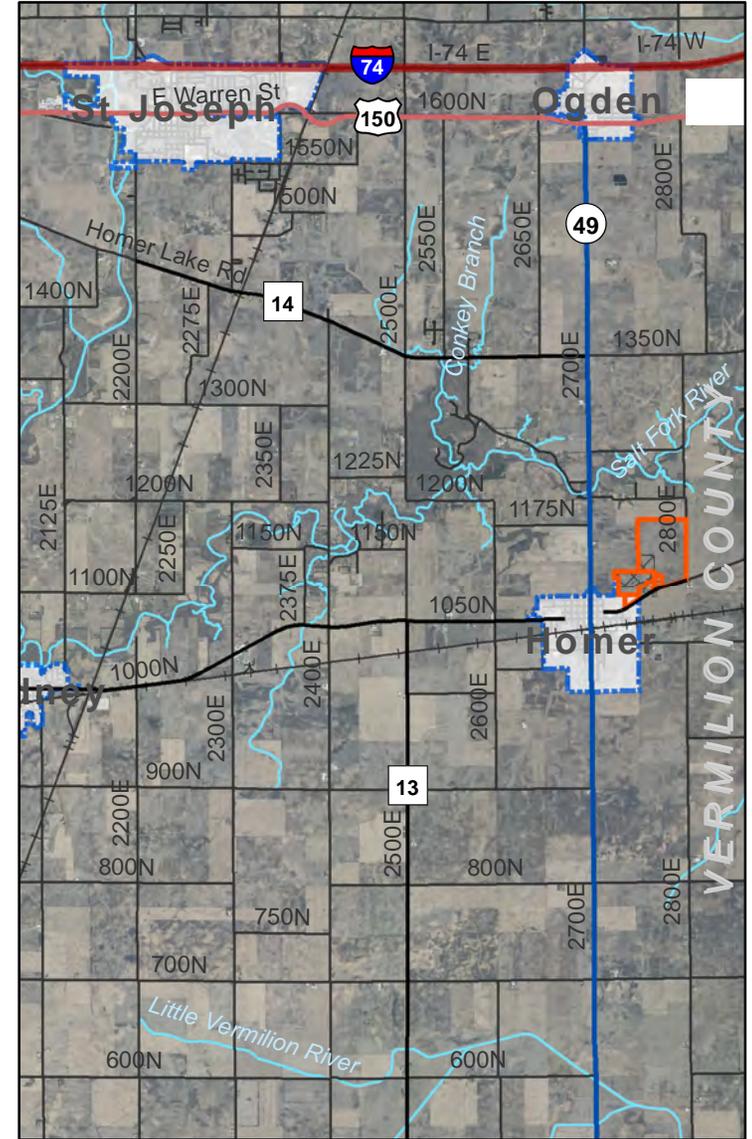
Subject Property



-  Subject Properties
-  Parcels
-  Municipal Boundary
-  Fenced solar area (approx)

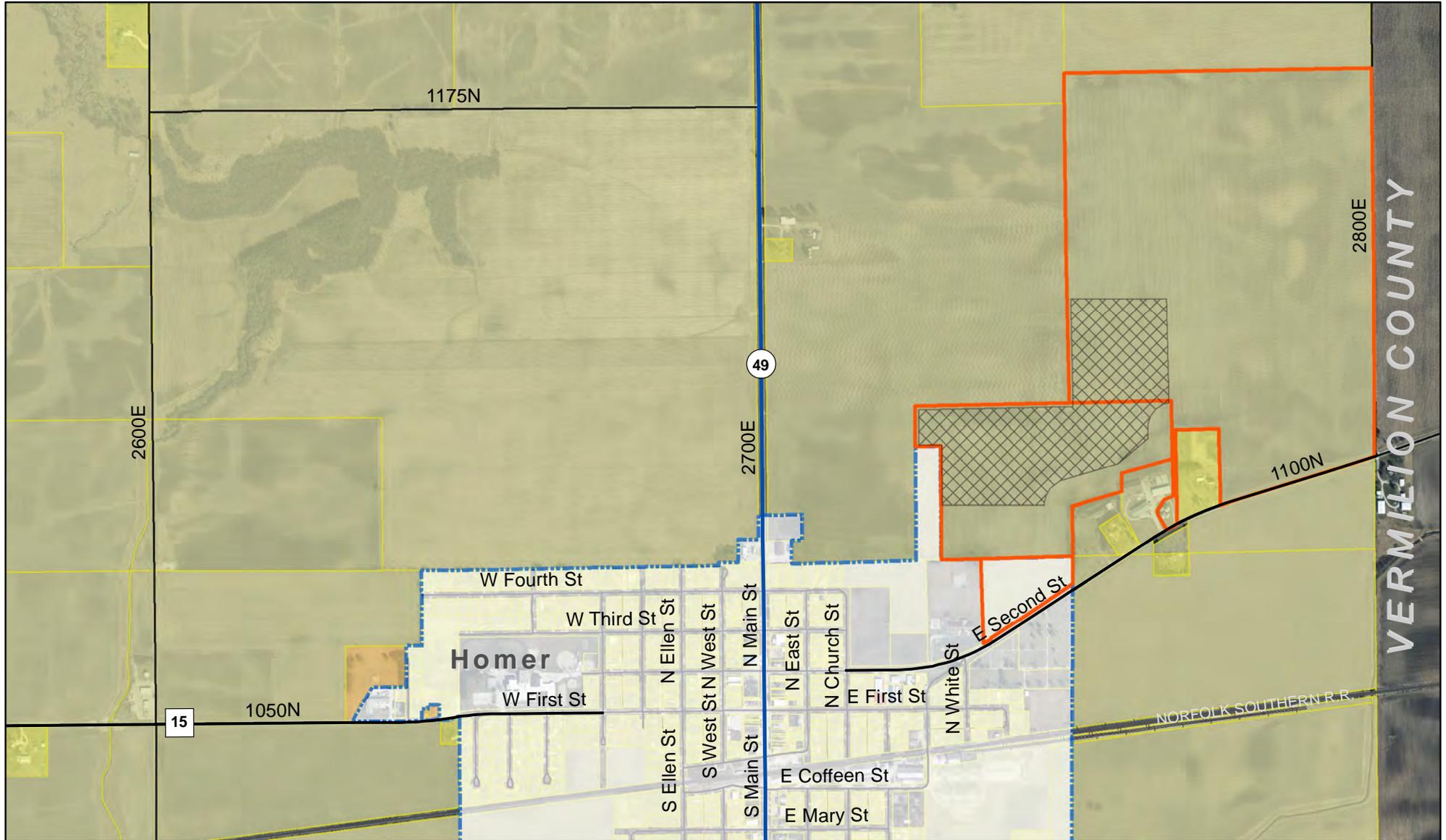


Property location in Champaign County



# Land Use Map

Case 074-S-22  
December 29, 2022



- Subject Properties
- Municipal Boundary
- Parcels
- Fenced solar area (approx)
- Agriculture
- Residential
- Utility

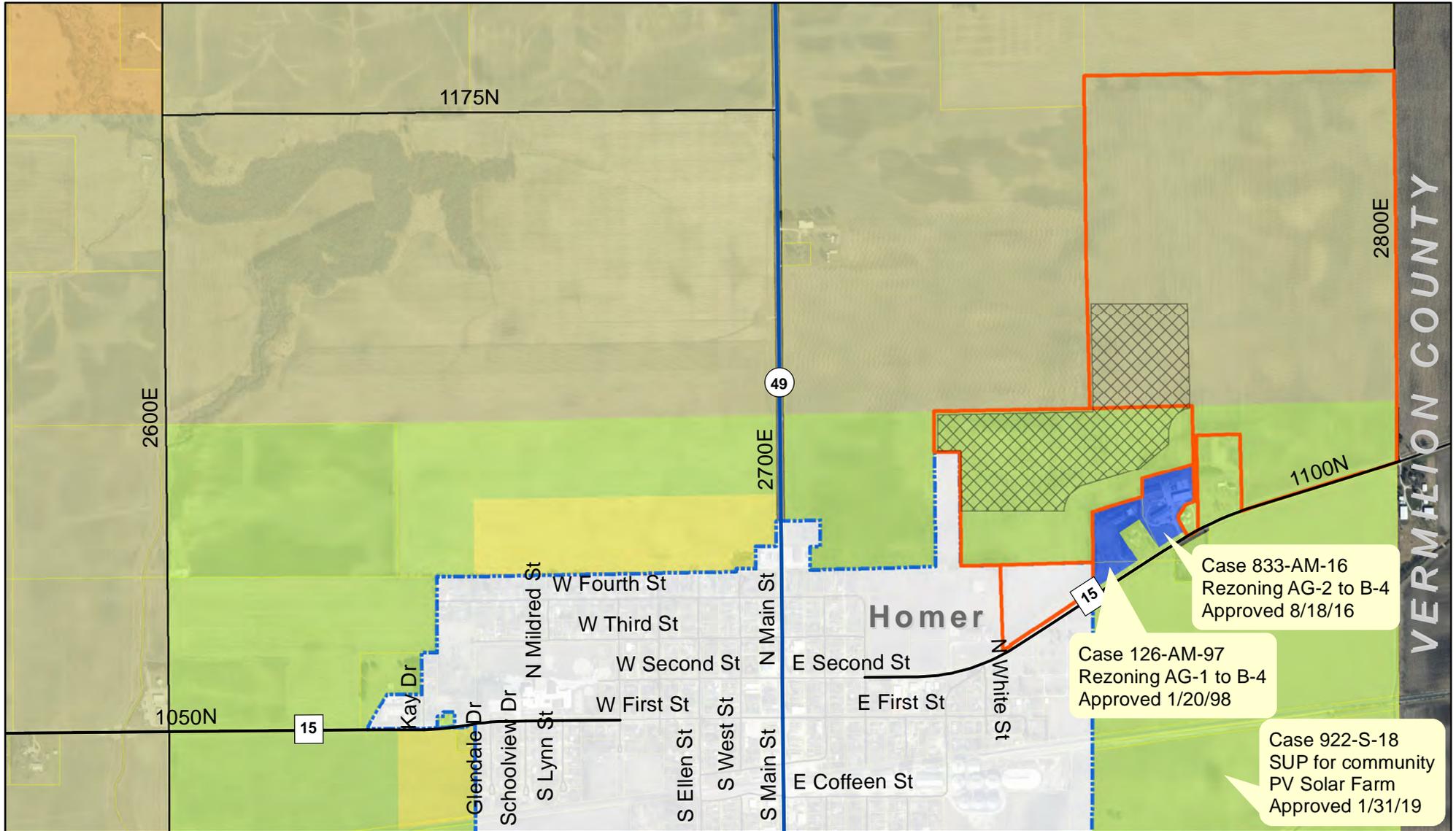
0 300 600 1,200 Feet



Champaign County  
Department of  
PLANNING &  
ZONING

# Zoning Map

Case 074-S-22  
December 29, 2022



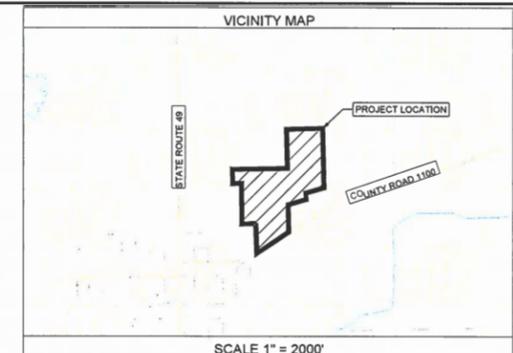
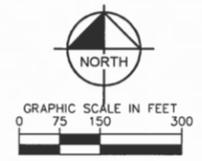
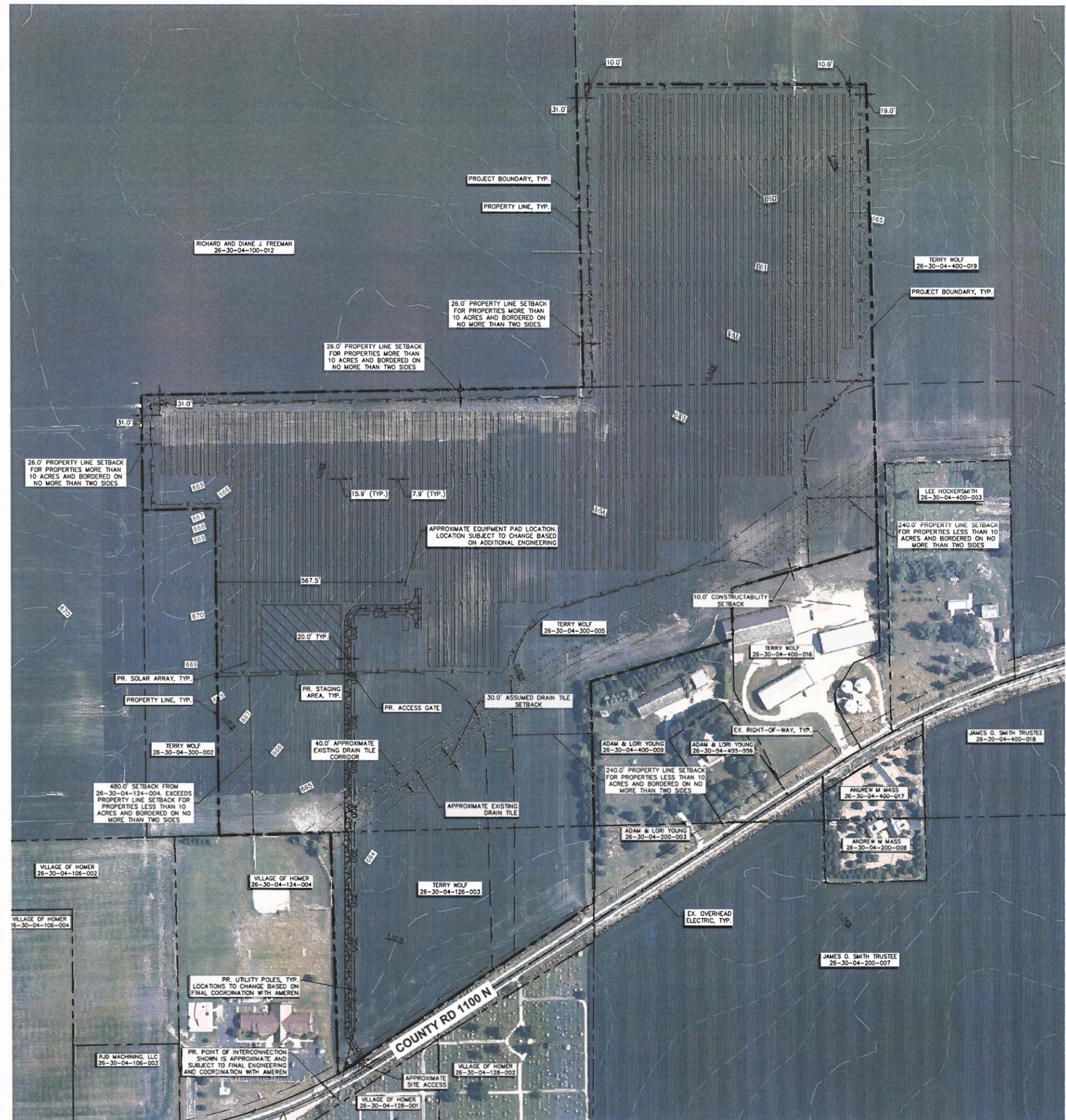
- Subject Properties
- Municipal Boundary
- Fenced solar area (approx)
- CR Conservation Recreation
- AG-1 Agriculture
- AG-2 Agriculture
- R-1 Single Family Residence
- B-4 General Business

Champaign County  
Department of  
**PLANNING &  
ZONING**

0 300 600 1,200 Feet

N

Drawing name: K:\DRG\DEV\26262003\_Cultivate\_Medanos\_A\_V Design\DWG\Embld\ZONING\_SITE\_PLAN.dwg 1 of 1 Nov 01, 2022 8:20am By: Jason-Horn  
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### LEGEND

PROPERTY LINE (PER CHAMPAIGN COUNTY GIS)	---
RIGHT OF WAY (APPROXIMATE)	R/W
SETBACK	---
STREET CENTERLINE	---
MAJOR STREET CENTERLINE SETBACK	---
EX. DRAIN TILE (APPROXIMATE)	---
EX. DRAIN TILE CORRIDOR (APPROXIMATE)	---
EX. DRAIN TILE SETBACK (ASSUMED)	---
EX. OVERHEAD ELECTRIC (PER AERIAL)	EX O <sub>H</sub> E
EX. UTILITY POLE (PER AERIAL)	○
ROAD LABEL	IL-251
EX. FLOW (DIRECTION AND SLOPE)	XXX
PR. SECURITY FENCE	X
PR. PANEL LIMITS	---
PR. UNDERGROUND ELECTRIC	---
PR. GRAVEL ACCESS ROAD	---
PR. UTILITY POLE	○
PR. EQUIPMENT PAD	□
PR. SOLAR ARRAY	▨
PR. STAGING AREA	▨

### SITE DATA TABLE

PIN NUMBERS	26-30-04-300-005, 26-30-04-400-019, 26-30-04-128-003
PROPERTY OWNER	TERRY WOLF
SITE ADDRESS	2710 COUNTY RD 1100 N, HOMER, IL 61849 SOUTH HOMER, IL 61849, CHAMPAIGN COUNTY
ZONING JURISDICTION	CHAMPAIGN COUNTY
CURRENT LAND USE	AGRICULTURE
PROPOSED USE	SOLAR FARM ENERGY SYSTEM
TOTAL PARCEL AREA	237.0 ± AC
PROJECT BOUNDARY AREA	77.5 ± AC
AREA WITHIN FENCE	46.4 ± AC
PRELIMINARY SOLAR AREA	37.5 ± AC
MAJOR STREET CENTERLINE SETBACK	60'
PROPERTY LINE SETBACK	10', 26', 240' OR 480', SEE NOTE 15
ASSUMED DRAIN TILE SETBACK	75'

\*ZONING SITE PLAN IS BEING SUBMITTED FOR SPECIAL USE PERMIT TO CONSTRUCT/OPERATE A SOLAR FARM ENERGY SYSTEM

- ### NOTES
- THE PURPOSE OF THIS PLAN IS FOR SPECIAL USE REVIEW AND APPROVAL BY CHAMPAIGN COUNTY TO CONSTRUCT A SOLAR FARM ENERGY SYSTEM.
  - THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING CHAMPAIGN COUNTY, GOOGLE EARTH, AND USGS TOPOGRAPHIC INFORMATION.
  - SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (COMMUNITY PANEL 17019105000) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
  - THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTER/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS DURING FINAL ENGINEERING.
  - PROJECT AREA, INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS NECESSARY, RETAINING PRE-DEVELOPMENT DRAINAGE PATTERNS TO THE BEST EXTENT POSSIBLE. CONSTRUCTION STAGING AND AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY STABILIZED WITH GRAVEL. SOIL CONDITIONS AND EQUIPMENT LOADS WILL DETERMINE FINAL DESIGN.
  - ALL DIMENSIONS SHOWN ARE AT 90 DEGREES UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL CALL AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. ADDITIONALLY, CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES.
  - CONTRACTOR SHALL MAINTAIN ACCESS AND UTILITY SERVICES TO ANY REMAINING BUILDING(S) OR ADJACENT BUILDING(S) THROUGHOUT THE DEMOLITION AND CONSTRUCTION PHASES. EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.
  - THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY PLACERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL THE TRAFFIC MAY PROCEED NORMALLY AGAIN.
  - SITE WILL HAVE NO DEDICATIONS FOR OPEN SPACE, NATURAL AREA, HISTORIC BUILDING(S)/STRUCTURE(S), OR STORMWATER MANAGEMENT FACILITIES.
  - STORMWATER MANAGEMENT FACILITIES TO BE PROVIDED AS REQUIRED BY COUNTY AND/OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING REQUIREMENTS TO BE DETERMINED DURING FINAL ENGINEERING.
  - SOLAR PANELS WILL BE DESIGNED WITH ANTI-REFLECTIVE COATING TO MINIMIZE GLARE.
  - COLLECTION LINES WITHIN THE SOLAR FARM WILL BE LOCATED AND MAINTAINED UNDERGROUND.
  - THERE SHALL BE NO EXTERIOR LIGHTING.
  - SETBACKS SHOWN ON THIS PLAN ARE BASED ON CHAMPAIGN COUNTY CODE OF ORDINANCES SECTION 7 OF MONTGOMERY COUNTY, IL ORDINANCE FOR SOLAR ENERGY FARM, AND SOLAR GRADE CONDITIONS.
  - ALL NECESSARY PERMITS FOR SOIL EROSION CONTROL AND DRIVEWAY CONSTRUCTION WILL BE OBTAINED AS PART OF FINAL ENGINEERING AND PRIOR TO CONSTRUCTION.

NO.	REVISIONS	DATE
4	REV. 4	11/01/2022
3	REV. 3	10/31/2022
1	REV. 2	09/15/2022
1	REV. 1	09/14/2022

**CULTIVATE POWER**

**Kimley-Horn**

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 DEERFIELD, IL 60015  
 WWW.KIMLEY-HORN.COM

Date of Expiration: 11-30-23

**ZONING SITE PLAN**

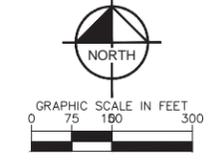
**CULTIVATE POWER  
MEDANOS SOLAR, LLC**

CHAUNTA G. COUNTY, IL

**RECEIVED**  
 NOV 21 2022  
 CHAMPAIGN CO P & Z DEPARTMENT

SHEET NUMBER  
**EX-1**

Drawing name: K:\CHS\_LDC\288262003\_Quilleya\_Medanos\_L2\_Design\CAD\Exhibits\CONSTRAINTS\_MAP\MEDANOS\_CONSTRAINTS\_MAP.dwg 1 OF 1 Sep 15, 2022 11:55am by: Alex.Walsh  
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### LEGEND

ROAD CENTERLINE (PER CHAMPAIGN COUNTY, PROVIDED ON 09/07/2022)	
ROAD LABEL	<b>N 2200TH ST</b>
PROJECT BOUNDARY (PER KMZ FILE, PROVIDED BY CULTIVATE POWER ON 09/01/2022)	
ROAD RIGHT OF WAY (TRACED PER MONTGOMERY COUNTY GIS)	
PROPERTY LINE (PER CHAMPAIGN COUNTY, PROVIDED ON 09/07/2022)	
PROPERTY LINE/RIGHT OF WAY SETBACK (PER CHAMPAIGN COUNTY CODE, RECEIVED 09/01/2022)	
EXISTING RESIDENCE/STRUCTURE (TRACED PER AERIAL)	
PRIMARY BUILDABLE AREA	
EXISTING OVERHEAD ELECTRIC (TRACED PER AERIAL)	
UTILITY POLE (TRACED PER AERIAL)	
MAJOR STREET CENTERLINE SETBACK (PER CHAMPAIGN COUNTY CODE, RECEIVED 09/01/2022)	
EX. SOIL BOUNDARY	

- ### NOTES
- SETBACKS (PER CHAMPAIGN COUNTY CODE, RECEIVED 09/01/2022) ARE AS FOLLOWS:
    - PROPERTY LINES (EXTERNAL, UNDER 10 ACRES IN AREA): 240 FT FROM PROPERTY LINE IF PROPERTY IS BORDERED ON NO MORE THAN TWO SIDES BY PROJECT BOUNDARY
      - ADDITIONAL 30 FT IS SHOWN TO ACCOUNT FOR ROADS AND FENCES
    - PROPERTY LINES (EXTERNAL, OVER 10 ACRES IN AREA): 255 FT FROM ANY DWELLING OR PRINCIPAL BUILDING, OR 10 FT FROM PROPERTY LINE
      - ADDITIONAL 30 FT IS SHOWN TO ACCOUNT FOR ROADS AND FENCES
    - MAJOR STREETS: 60 FT FROM STREET CENTERLINE
    - WETLAND: N/A
    - FLOODZONE: N/A
    - SUBSTATION: N/A
  - IT IS ASSUMED ROADS & FENCING CANNOT BE PLACED WITHIN PROPERTY SETBACKS.
  - PROJECT LIMITS WERE PROVIDED BY CULTIVATE POWER ON 09/01/2022.
  - ROAD CENTERLINES AND TAX PARCELS PROVIDED BY CHAMPAIGN COUNTY GIS ON 09/08/2022.

### SOILS DATA TABLE

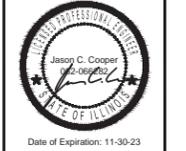
MAP UNIT SYMBOL	MAP UNIT NAME	RATING
56B	DANA SILT LOAM, 2 TO 5 PERCENT SLOPES	C
152A	DRUMMER SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES	B/D
154A	FLANAGAN SILT LOAM, 0 TO 2 PERCENT SLOPES	C/D
171B	CATLIN SILT LOAM, 2 TO 5 PERCENT SLOPES	C
198A	ELBURN SILT LOAM, 0 TO 2 PERCENT SLOPES	B/D
663B	CLARE SILT LOAM, 2 TO 5 PERCENT SLOPES	C

No.	REVISIONS	DATE
2	REV. 2	09/15/2022
1	REV. 1	09/14/2022

**CULTIVATE POWER**

**Kimley-Horn**

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 DEERFIELD, IL 60015  
 WWW.KIMLEY-HORN.COM



KHA PROJECT	268262003	CC	ACW	JC
ORIGINAL DATE	09/09/2022			
SCALE	AS SHOWN			
DESIGNED BY				
DRAWN BY				
CHECKED BY				

## CONSTRAINTS MAP

**CULTIVATE POWER**  
**MEDANOS SOLAR, LLC**  
 CHAMPAIGN COUNTY, IL

RECEIVED  
 SEP 19, 2022  
 CHAMPAIGN COUNTY  
 PLANNING & ZONING

SHEET NUMBER  
**EX-1**

Exhibit B

**RECEIVED**  
 SEP 19, 2022  
 CHAMPAIGN COUNTY  
 PLANNING & ZONING



## Solar Overview

### Solar Technology

Medanos Solar, LLC will contain rows of Photovoltaic (PV) cell modules mounted on posts set in the ground. These rows of modules are referred to as “solar arrays” mounted on a single axis tracking system, which allows them to follow the sun throughout the day. The modules face east in the morning, are horizontal at midday, and face west in the afternoon, and are no more than twelve (12) feet high at max tilt. Solar components will comply with the current edition of the National Electric Code, are UL Listed or equivalent, and will have an anti-reflective coating.

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

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

Current photovoltaic modules are typically Crystalline Silicone (C-Si) and Thin Film (TF). The solar PV modules function as a solid state, inert crystal, similar to a pane of solid glass. The modules do not corrode and do not produce any emissions. The technology is encapsulated in layers of plastic and glass to prevent air and moisture from entering the cell and conversely prevents the release of materials out of the module and into the environment.<sup>1</sup> The solar panels are expected to work upwards of 40 years before they are recycled to recover the valuable materials contained inside.

### Glare

Photovoltaic solar energy systems are designed to reduce reflection and have low potential to produce hazardous glare. Modules are covered with anti-reflective coating and demonstrate less glare than windows and water.<sup>2</sup>

<sup>1</sup> [https://nccleantech.ncsu.edu/wp-content/uploads/2018/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-2017\\_white-paper.pdf](https://nccleantech.ncsu.edu/wp-content/uploads/2018/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-2017_white-paper.pdf)

<sup>2</sup> <https://www.nrel.gov/state-local-tribal/blog/posts/research-and-analysis-demonstrate-the-lack-of-impacts-of-glare-from-photovoltaic-modules.html>



## Sound

The solar energy system produces minimal sound during the day and no sound overnight. The main source of noise is from the inverter, but this noise cannot be heard beyond the project boundary. The inverter rated at 67 decibels, about the volume of a washing machine, at 10 meters.<sup>3</sup>

## Environmental Impact

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

## Safety

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

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

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

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

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<sup>3</sup> <https://www.ensolar.com/pv/inverter-datasheet/13175>

## Exhibit C



## Construction Overview

### Timeline

The construction of Medanos Solar is expected to take approximately 12-16 weeks using standard solar construction procedures. The utility's engineering, procurement, and construction of the interconnection facilities will take 6-18 months total and will be complete just before the construction of the solar farm itself. Finally, the solar farm will go through 2-3 weeks of commissioning before reaching commercial operation.

### Finances and Labor

Medanos Solar, LLC expects to invest an estimated \$7,000,00 into the project. These costs are based on build cost assumptions and include all construction, material, labor, and professional service-related expenditures. Cultivate Power, in combination with tax equity and debt partners, will provide the financial backing for the project.

Approximately \$4,000,000 of the project cost will benefit the local economy including expenditures on parts and labor, goods and services, fuel and lodging, dining and other consumer resources. Medanos Solar, LLC will result in the creation of approximately 24 local jobs during construction provided that qualified, local labor is available.<sup>1</sup> Cultivate Power hires and works with qualified, local subcontractors wherever possible. Local contractors are most familiar with local practices and authorities, which streamlines work on our projects.

### Soil, Grading, and Vegetation

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

### Drain Tile

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

### Traffic

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

<sup>1</sup> <https://www.seia.org/research-resources/national-solar-jobs-census-2020>

Exhibit D



# Operation and Maintenance Overview

## Equipment Maintenance

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

## Vegetation Maintenance

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

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

## Traffic Safety

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

Exhibit E



# Decommissioning and Site Reclamation Plan

## Commitments and Code Adherence

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

## Decommissioning Conditions

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

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

## Decommissioning Steps

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

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

## Financial Assurance

Medanos Solar, LLC will provide Champaign County with financial assurance of decommissioning in the form of a bond or letter of credit. The decommissioning cost will be determined by an IL Certified Professional Engineer’s Decommissioning Estimate, and the amount of assurance will comply with Champaign County Zoning Ordinance Section 6.1.5 Q.(4)

## Full Decommissioning and Site Reclamation Plan

Prior to construction, Medanos Solar, LLC will submit a full Decommissioning and Site Reclamation Plan in accordance with section 6.1.5 Q and 6.1.1 A of the Champaign County Zoning Ordinance.



# Illinois Department of Natural Resources

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

JB Pritzker, Governor

Colleen Callahan, Director

September 12, 2022

**RECEIVED**  
SEP 19, 2022  
CHAMPAIGN COUNTY  
PLANNING & ZONING

Kiera Gavin  
Cultivate Power, LLC  
P.O. Box 472524  
San Francisco, IL 94147

**RE: Medanos Solar, LLC**  
**Project Number(s): 2304243**  
**County: Champaign**

Dear Applicant:

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

The Department encourages all new and existing solar facilities to participate in the Solar Site Pollinator Scorecard program. More information can be found here:  
<https://www2.illinois.gov/dnr/conservation/pollinatorscorecard/pages/default.aspx>

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Kyle Burkwald  
Division of Ecosystems and Environment  
217-785-5500



**Applicant:** Cultivate Power, LLC  
**Contact:** Kiera Gavin  
**Address:** P.O. Box 472524  
 San Francisco, IL 94147

**IDNR Project Number:** 2304243  
**Date:** 09/09/2022

**Project:** Medanos Solar, LLC  
**Address:** 2710 County Rd 1100 N, Homer

**Description:** Requesting consultation on this property for a proposed development of an up-to 5MW solar farm.

## Natural Resource Review Results

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

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

Edgewood Farm INAI Site  
 Salt Fork Vermilion River Segment INAI Site  
 Edgewood Farm Land And Water Reserve  
 Bigclaw Crayfish (*Orconectes placidus*)  
 Bigeye Chub (*Hybopsis amblops*)  
 Bluebreast Darter (*Etheostoma camurum*)  
 Monkeyface (*Quadrula metanevra*)  
 Purple Wartyback (*Cyclonaias tuberculata*)  
 Purple Wartyback (*Cyclonaias tuberculata*)  
 Rainbow (*Villosa iris*)  
 Wavy-Rayed Lampmussel (*Lampsilis fasciola*)  
 Wavy-Rayed Lampmussel (*Lampsilis fasciola*)

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

### Location

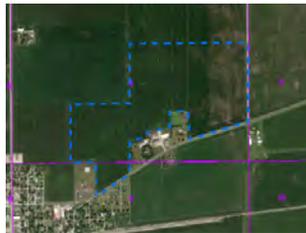
The applicant is responsible for the accuracy of the location submitted for the project.

**County:** Champaign

**Township, Range, Section:**

18N, 14W, 4

18N, 14W, 9



**IL Department of Natural Resources  
 Contact**  
 Kyle Burkwald  
 217-785-5500  
 Division of Ecosystems & Environment

**Government Jurisdiction**  
 Champaign County  
 John Hall  
 1776 E. Washington  
 Urbana, Illinois 61802

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**Disclaimer**

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

**Terms of Use**

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.
2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

**Security**

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

**Privacy**

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

RECEIVED

SEP 19, 2022

CHAMPAIGN COUNTY  
PLANNING & ZONING



Exhibit H

# Utility Interconnection

Please see confirmation email from Ameren Illinois as proof that our Interconnection Application was submitted, paid, and that the project is in the study process to interconnect with Ameren.

From: DoNotReply@PowerPlans.com  
 To: info@bvarspower.co, info@bvarspower.co  
 CC: info@bvarspower.co  
 Subject: Your Application # DER-10272 has Been Received



8/16/2022

Nico Galletout

P.O. Box 14055  
Chicago, IL 60614

RE:

INTERCONNECTION APPLICATION FEE RECEIVED

Dear Nico Galletout,

Your application # DER-10272 for interconnection application fee has been received and is currently being reviewed. You are eligible to have net metering installed for generation for the following address:

East of N Main St on County Rd 1100 N  
South Homer

For additional information, please access the Ameren Illinois website at:

<https://www.ameren.com/illinois/residential/supply-choice/renewables>

We look forward to working with you to ensure the reliable and safe operation of the electric distribution system. Distribution Design will continue to be your point of contact regarding your interconnection, so please feel free to contact us at any time.

If you have any questions about this project, please contact Distribution Design using our email address [RenewablesIllinois@ameren.com](mailto:RenewablesIllinois@ameren.com).

Thank you for adding a renewable energy source to help meet your energy needs and ease demand on Illinois' electrical grid.

Sincerely,

Ameren Illinois Distribution Design

This message was sent from the Ameren Illinois Aggregated Net Metering Portal.

Our website is <https://www.ameren.com/illinois/residential/supply-choice/renewables>.

Thank you for using the portal.

Ameren Illinois will never contact you by email asking you to validate your password. If you receive such a request, please notify us.

Letter ID: E-2023 DER Customer Application Fee Received

# SUNNY CENTRAL

## 2660 UP-US / 2800 UP-US / 2930 UP-US / 3060 UP-US



**Efficient**

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

**Robust**

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

**Flexible**

- Conforms to all known grid requirements worldwide
- Q on demand
- Available as a single device or turnkey solution, including Medium Voltage Power Station

**Easy to Use**

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

# SUNNY CENTRAL

## 2660 UP-US / 2800 UP-US / 2930 UP-US / 3060 UP-US

The new Sunny Central: more power per cubic meter

With an output of up to 3060 kVA and system voltages of 1500 V DC, the SMA central inverter allows for more efficient system design and a reduction in specific costs for PV power plants. A separate voltage supply and additional space are available for the installation of customer equipment. True 1500 V technology and the intelligent cooling system OptiCool ensure smooth operation even in extreme ambient temperature as well as a long service life of 25 years.

# SUNNY CENTRAL 2660 UP-US / 2800 UP-US

Technical data*	SC 2660 UP-US	SC 2800 UP-US
<b>Input (DC)</b>		
MPP voltage range $V_{DC}$ (at 35 °C / at 50 °C)	880 to 1325 V / 1100 V	921 to 1325 V / 1100 V
Min. input voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	849 V / 1030 V	891 V / 1071 V
Max. input voltage $V_{DC, max}$	1500 V	
Max. input current $I_{DC, max}$ / with DC coupling	3200 A / 4800 A	
Max. short-circuit current $I_{DC, sc}$	6400 A	
Number of DC inputs	24 double pole fused (32 single pole fused)	
Number of DC inputs with optional DC coupling of battery	18 double pole fused (36 single pole fused) for PV, 6 double pole fused for batteries	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm <sup>2</sup>	
Integrated zone monitoring	○	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available DC-DC converter fuse size (per input)	750 A	
<b>Output (AC)</b>		
Nominal AC power at $\cos \phi = 1$ (at 35 °C / at 50 °C)	2667 kVA / 2400 kVA	2800 kVA / 2520 kVA
Nominal AC power at $\cos \phi = 0.8$ (at 35 °C / at 50 °C)	2134 kW / 1920 kW	2240 kW / 2016 kW
Nominal AC current $I_{AC, nom}$ (at 35 °C / at 50 °C)	2566 A / 2309 A	
Max. total harmonic distortion	< 3% at nominal power	
Nominal AC voltage / nominal AC voltage range <sup>1) 8)</sup>	600 V / 480 V to 720 V	630 V / 504 V to 756 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals <sup>9)</sup>	> 2	
Power factor at rated power / displacement power factor adjustable <sup>8) 10)</sup>	1 / 0.8 overexcited to 0.8 underexcited	
<b>Efficiency</b>		
Max. efficiency <sup>2)</sup> / European efficiency <sup>2)</sup> / CEC efficiency <sup>3)</sup>	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
<b>Protective Devices</b>		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I	
AC overvoltage protection (optional)	Surge arrester, class I	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	○ / ○	
Insulation monitoring	○	
Degree of protection	NEMA 3R	
<b>General Data</b>		
Dimensions (W / H / D)	2815 / 2318 / 1588 mm (110.8 / 91.3 / 62.5 inch)	
Weight	< 3400 kg / < 7500 lb	
Self-consumption (max. <sup>4)</sup> / partial load <sup>5)</sup> / average <sup>6)</sup>	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	○ Integrated 8.4 kVA transformer	
Operating temperature range <sup>8)</sup>	-25 °C to 60 °C / -13 °F to 140 °F	
Noise emission <sup>7)</sup>	67.0 dB(A)*	
Temperature range (standby)	-40 °C to 60 °C / -40 °F to 140 °F	
Temperature range (storage)	-40 °C to 70 °C / -40 °F to 158 °F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL <sup>8)</sup> 1000 m / 2000 m	● / ○ (earlier temperature-dependent derating)	
Fresh air consumption	6500 m <sup>3</sup> /h	
<b>Features</b>		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Communication with SMA string monitor (transmission medium)	Modbus TCP / Ethernet (FO MM, Cat-5)	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply transformer for external loads	○ (2.5 kVA)	
Standards and directives complied with	UL 62109-1, UL 1741 (Chapter 31, CDR 61), UL 1741-SA, UL 1998, IEEE 1547, MIL-STD-810G	
EMC standards	FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	
● Standard features ○ Optional * preliminary		

1) At nominal AC voltage, nominal AC power decreases in the same proportion

2) Efficiency measured without internal power supply

3) Efficiency measured with internal power supply

4) Self-consumption at rated operation

5) Self-consumption at < 75% P<sub>n</sub> at 25 °C6) Self-consumption averaged out from 5% to 100% P<sub>n</sub> at 25 °C

7) Sound pressure level at a distance of 10 m

8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.

9) A short-circuit ratio of &lt; 2 requires a special approval from SMA

10) Depending on the DC voltage

# SUNNY CENTRAL 2930 UP-US / 3060 UP-US

Technical data*	SC 2930 UP-US	SC 3060 UP-US
<b>Input (DC)</b>		
MPP voltage range $V_{DC}$ (at 35 °C / at 50 °C)	962 to 1325 V / 1100 V	1003 to 1325 V / 1100 V
Min. input voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	934 V / 1112 V	976 V / 1153 V
Max. input voltage $V_{DC, max}$	1500 V	
Max. input current $I_{DC, max}$ / with DC coupling	3200 A / 4800 A	
Max. short-circuit current $I_{DC, sc}$	6400 A	
Number of DC inputs	24 double pole fused (32 single pole fused)	
Number of DC inputs with optional DC coupling of battery	18 double pole fused (36 single pole fused) for PV, 6 double pole fused for batteries	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm <sup>2</sup>	
Integrated zone monitoring	○	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available DC-DC converter fuse size (per input)	750 A	
<b>Output (AC)</b>		
Nominal AC power at $\cos \phi = 1$ (at 35 °C / at 50 °C)	2933 kVA / 2640 kVA	3067 kVA / 2760 kVA
Nominal AC power at $\cos \phi = 0.8$ (at 35 °C / at 50 °C)	2346 kW / 2112 kW	2454 kW / 2208 kW
Nominal AC current $I_{AC, nom}$ (at 35 °C / at 50 °C)	2566 A / 2309 A	
Max. total harmonic distortion	< 3% at nominal power	
Nominal AC voltage / nominal AC voltage range <sup>1) 8)</sup>	660 V / 528 V to 759 V	690 V / 552 V to 759 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals <sup>9)</sup>	> 2	
Power factor at rated power / displacement power factor adjustable <sup>8) 10)</sup>	1 / 0.8 overexcited to 0.8 underexcited	
<b>Efficiency</b>		
Max. efficiency <sup>2)</sup> / European efficiency <sup>2)</sup> / CEC efficiency <sup>3)</sup>	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
<b>Protective Devices</b>		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I	
AC overvoltage protection (optional)	Surge arrester, class I	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	○ / ○	
Insulation monitoring	○	
Degree of protection	NEMA 3R	
<b>General Data</b>		
Dimensions (W / H / D)	2815 / 2318 / 1588 mm (110.8 / 91.3 / 62.5 inch)	
Weight	< 3400 kg / < 7500 lb	
Self-consumption (max. <sup>4)</sup> / partial load <sup>5)</sup> / average <sup>6)</sup>	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	○ Integrated 8.4 kVA transformer	
Operating temperature range <sup>8)</sup>	-25 °C to 60 °C / -13 °F to 140 °F	
Noise emission <sup>7)</sup>	67.0 dB(A)*	
Temperature range (standby)	-40 °C to 60 °C / -40 °F to 140 °F	
Temperature range (storage)	-40 °C to 70 °C / -40 °F to 158 °F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL <sup>8)</sup> 1000 m / 2000 m	● / ○ (earlier temperature-dependent derating)	
Fresh air consumption	6500 m <sup>3</sup> /h	
<b>Features</b>		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Communication with SMA string monitor (transmission medium)	Modbus TCP / Ethernet (FO MM, Cat-5)	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply transformer for external loads	○ (2.5 kVA)	
Standards and directives complied with	UL 62109-1, UL 1741 (Chapter 31, CDR 6I), UL 1741-SA, UL 1998 IEEE 1547, MIL-STD-810G	
EMC standards	FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	
● Standard features ○ Optional * preliminary		

1) At nominal AC voltage, nominal AC power decreases in the same proportion

2) Efficiency measured without internal power supply

3) Efficiency measured with internal power supply

4) Self-consumption at rated operation

5) Self-consumption at < 75% P<sub>n</sub> at 25 °C6) Self-consumption averaged out from 5% to 100% P<sub>n</sub> at 25 °C

7) Sound pressure level at a distance of 10 m

8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.

9) A short-circuit ratio of &lt; 2 requires a special approval from SMA

10) Depending on the DC voltage



# FS-Series PV Module Cleaning Guidelines

First Solar modules are frameless and do not require cleaning as installed. Installed modules may collect a light layer of dust and/or dirt over time. For many installations, rainfall should be sufficient to remove any lighter soiling. In locations with heavy soiling, properly timed module cleaning can improve energy yields.

**Cleaning activities create risk of damage to the modules and array components, as well as the potential for electric shock.**

Only properly trained personnel who understand the risks of applying water to electrical components should clean modules. Trained personnel shall wear appropriate electrically insulating Personal Protective Equipment (PPE) during cleaning, inspection operations, or when working near modules.

Professional cleaning services trained to work on live electrical systems are available for hire.



Cracked or broken modules represent a shock hazard due to leakage currents, and the risk of shock increases when modules are wet. Before cleaning, thoroughly inspect modules for cracks, damage, and loose connections.

The voltage and current present in an array during daylight hours are sufficient to cause a lethal electrical shock.

Acceptable module cleaning methods include spraying the modules with low-pressure water that is closely matched in temperature to the temperature of the module or to use a dry brushing technique. The following guidelines minimize impact to plant power generation, reduce safety hazards, and minimize risk of module damage.

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## All Cleaning Techniques

- Clean modules only when in open circuit or when inverter is not operational. The recommended time to clean modules is from dusk to dawn when production is not affected and risk of electrical shock hazard is minimized.
- To ensure warranty coverage, First Solar must review and approve:
  - Automated or motorized cleaning tools and methods
  - Cleaning fixtures or tools which are supported by or rest on modules
- The ideal time for cleaning modules is during low light conditions when production is lowest.

## Cleaning Techniques for Uncoated Modules

### Wet Cleaning

- Fresh water (TDS < 1500 mg/L) may be used to clean the modules. If needed, a mild, non-abrasive, non-caustic detergent with a final fresh water and detergent solution mix between  $6.5 < \text{pH} < 8.5$  at  $25^{\circ}\text{C}$  may be used.
- Water must be free of floating oil or other immiscible liquids, floating debris, excessive turbidity, and objectionable odors.
- When using water, RO water provides the best results. When RO water is not available, tap water with low mineral content (total hardness < 75 mg/L) or deionized water may be used. Calcium should not exceed: 75 mg/ml.
- When using hard water ( $75 \text{ mg/L} < \text{total hardness} < 180 \text{ mg/L}$ ), the water must be squeegeed off to prevent scale buildup.
- Chlorides should not exceed 250 mg/ml and water conductivity should be < 250 mS/cm
- Do not use abrasive cleaners or de-greasers on the module. Do not use cleaning solutions containing hydrochloric acid, D-Limonene, ammonia, or sodium hydroxide.
- Water pressure must not exceed 35 bar (500 psi) at the nozzle. Do not apply water that is more than  $20^{\circ}\text{C}$  warmer or colder than module surface temperature.

- Do not spray pressurized water directly at sealed interfaces of module (junction box, edge seal, and connectors). Do not brush or clean backside of module to avoid accidental stress to lead wires or junction box.

## Dry or Brush Cleaning

- Please provide the specific brush material and data sheet for review
- If excessive soiling is present, a non-conductive nylon or similar material brush, sponge, or other mild agitating method may be used with caution
- Ensure brushes or agitating tools are not abrasive to glass, EPDM, silicone, aluminum, or steel
- Ensure any brushes or agitating tools are constructed with non-conductive materials to minimize risk of electric shock

## Cleaning Techniques for Anti-Reflective Coated (ARC) Modules

### Wet Cleaning

- The wet spray cleaning techniques for uncoated modules above may be used for ARC modules.
- Wet contact cleaning (squeegees, sponges, cloths, etc.), which includes any simultaneous combination of water and scrubbing/wiping is prohibited for ARC modules.
- Excessively soiled spots on modules (i.e. bird droppings) may be spot-cleaned with soft cloth or mop and water if necessary for localized cleaning only.
- Use of hard water ( $75 \text{ mg/L} < \text{total hardness} < 180 \text{ mg/L}$ ) is prohibited on ARC Modules.

## Dry Cleaning

- Dry cleaning of ARC modules with soft cloths or mops is allowed up to six times annually. Examples of soft cloths or mops are shown in Figure 1 below.
- Dry cleaning with anything other than soft cloths or mops is prohibited (i.e. bristle brushes, sponges, or squeegees).



## Module Load

Cleaning solutions vary in design and size that can affect the load dispersed onto the modules. Load specifications and data must be identified and submitted with the documentation for cleaning system approval.

- First Solar recommends no more than 90lbs per module that is evenly distributed while cleaning
  - Specific contact points (wheels or belts) can affect the load and pressure placed on the modules – review of this critical information is part of the approval process
  - Below are some examples of loads that shall not be exceeded:
    - 3 point loads (P1)
      - Max of 30lbs each in a row that are 16 inches apart

- Must be 5.25 inches or more from the long edge of the glass
- OR -
- Up to 1 lb./inch (P2) of contact length for a drive belt (max 47.62 inch length) anywhere on the module, except at the clips
- OR -
- Up to 1 lb./inch (P3) of contact length for brushes contacting the module (max 23.62 inch length) anywhere on the module
- OR -
- Some combination of the above load types so that  $P1/30 + P2 + P3 \leq 1$
- Cleaning solutions must not affect or jeopardize any part of the mounting system
  - This includes all parts of the mounting system: clips, rails, and trackers
- Vibration from the cleaning solution shall not cause module breakage or any movement of the modules in their mounting hardware.

## Module Shading

When module cell areas are shaded by cleaning devices of certain geometries, the module cells may experience damage driven by localized areas of reverse bias (negative voltage / positive current). High Risk (prohibited) shading detail can be found in the Module User Guide.

---

**Important:** Prohibited module shading may result in warranty coverage being voided. The customer, project owner, O&M provider, or entity responsible for the project site is responsible for seeking approval of any cleaning method to ensure it is suitable for use on modules and use in an outdoor environment

---

## Snow Clearing

Varying snow conditions may be cleared from the modules when utilizing the All Cleaning Techniques protocol and aforementioned specific dry cleaning methods. Do not use prohibited tools or objects to remove snow as it may damage the modules. Other snow clearing methods, such as blowers, may be used depending on snow conditions and approval by First Solar. To prevent pile up and overload, periodically clearing snow from the bottom modules first in an array is a critical process.



## Cleaning System Design Approval Process

Cleaning systems must complete the approval process outlined below for First Solar compliance and module warranty support. Required documentation is outlined below and should be submitted to the First Solar Technical Support team. Additional information may be requested upon review of the design.

### Checklist

- MSDS & datasheets on the brush material
- Two samples of the brush material
- Water hardness, temperature and applied pressure
- MSDS & datasheets on the cleaning solution
- Conductivity of water solution
- Max point loads on module (including total system weight)
- Dimensions/drawings of cleaning system
- Photos/video of cleaning system
- Shading analysis
- Method of Procedure (MOP)

Samples may be required for further evaluation:

- The complete cleaning system
- If wet cleaning with detergents, samples of the solution and chemical composition

Upon receiving the above items, First Solar will review the proposed design and decide if the design is accepted or needs further review. If the review is successful, First Solar will provide a confirmation of compliance.

A copy of all submitted drawings will be retained by First Solar for historical record. First Solar may require a service fee to complete the process of a cleaning system approval. The invoicing information will be requested and required.

First Solar does not provide Warranty on modules that are deemed damaged by the cleaning methods used. Failure to comply with the Module Cleaning Guidelines may void warranty.

First Solar warrants its modules according to the First Solar Module Warranty Terms & Conditions provided the modules are installed, operated and serviced as described in the First Solar User Guide.

For additional questions regarding cleaning methods or approvals of mechanical cleaning methods, please contact the First Solar Technical Services team at [technicalsupport@firstsolar.com](mailto:technicalsupport@firstsolar.com).





Vegetation Management Plan by Cultivate Power, LLC  
on behalf of

**Medanos Solar, LLC**

December 2022



**RECEIVED**

NOV 21 2022

CHAMPAIGN CO. P & Z DEPARTMENT

## Table of Contents – Medanos Solar, LLC

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Installation and management timelines	page 9
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## Medanos Solar, LLC

**Owner:** Medanos Solar, LLC

**Location:** 2710 County Road 1100 N, Village of Homer, Champaign County IL

**Project Developer:**

Cultivate Power, LLC on behalf of Medanos Solar, LLC  
Kiera Gavin  
847.736.8690

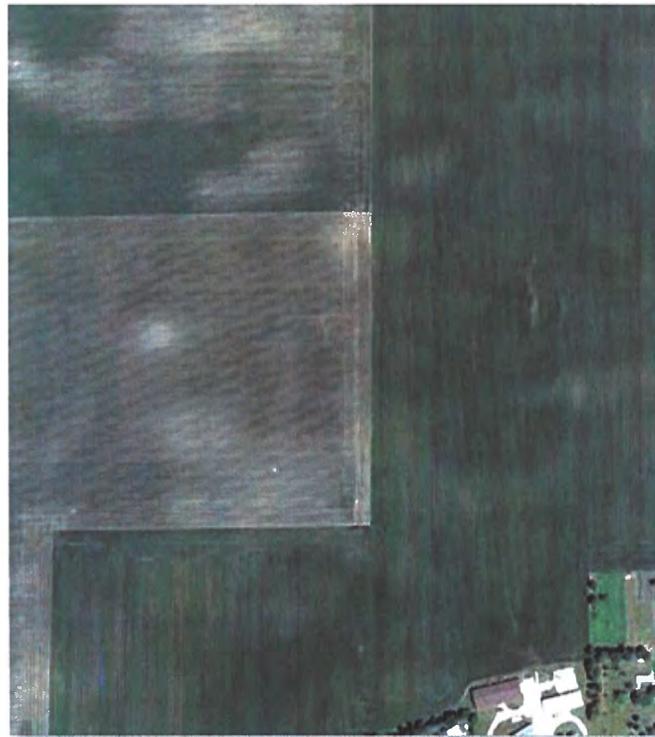
**Project Owner:**

Medanos Solar, LCC  
Brian Matthay, 415-350-9971  
Noah HYTE, 404-317-1908

**Vegetation Restoration Professionals:**

Natural Resource Services, Inc. 763-656-8587  
2885 Quail Road NE, Sauk Rapids, MN 56379

N ↑



**Proposed Project Area for Medanos Solar, LLC  
2710 County Road 1100 North, Village of Homer IL**

## Vegetation Overview of Medanos Solar, LLC

Economical production of clean, renewable solar energy is the foremost goal of any solar array. There is a parallel opportunity to restore soil health on the site by utilizing low maintenance native vegetation. Native plant communities provide site stability, improved water filtration and critically important habitat for native insects and songbirds while offering long-term cost effective vegetative cover. The native vegetation on this site will not require artificial fertilizers or soil amendments, further improving the quality of the aquifer by their absence.

This solar site is proposed for 46.4 acres at 2710 Champaign County Road 1100 North in the Village of Homer IL. The land is currently being utilized for typical row crops, and the USDA\* lists the soil on the site as 61% Drummer silty clay loam and 35% Flanagan silt loam, mostly poorly drained to poorly drained.

A drain tile corridor exists outside the solar array fencing running from the SW corner to the NE corner. The land over the drain tile corridor will not be disturbed with the exception of the addition of a narrow gravel access road adjacent to the Village of Homer parcel and buildings. While unlikely to occur, any drain tiles damaged during road construction will be repaired

A temporary crop of oats or wheat, seasonally determined, should be seeded prior to construction to aid in site stabilization during construction.

Native grasses, sedges and forbs (wildflowers) have been selected based on their ecological appropriateness to the location and conditions of this Illinois site with consideration for the species' mature heights so as not interfere with panel productivity. A nurse crop of oats or wheat will be included in the permanent seeding as well. There is no live screening specified at this time.

When the site has neared completion and is ready for permanent seeding, a full site herbicide treatment is applied to terminate weeds that will have grown during construction. The herbicide typically used for this phase is glyphosate, a common brand is Round-Up®.

Native plant communities contribute minerals, enzymes and bacteria needed to restore health to soil that has been damaged by decades of artificial fertilizers and tilling. Additionally, native plants offer a secondary purpose of providing forage and nesting spaces for native bees, insects butterflies, bats, song and game birds and small mammals.

\*Source: United States Department of Agriculture soil survey website: [www.websoilsurvey.sc.egov.usda.gov](http://www.websoilsurvey.sc.egov.usda.gov)

## Site Preparation for Medanos Solar

1. Inspection of the project area post construction for swales or erosion created by storm water.
2. Construction debris, garbage and building materials will be removed and/or staged outside the intended seeding areas.
3. Herbicide application will be completed using glyphosate (Round-up® or equivalent) as per manufacturer's directions in areas with undesirable vegetation growing. Allow a minimum of 10 days before disturbing the soil or completing seeding activities.
4. When perennial broadleaf vegetation is present a triclopyr herbicide will be added (Garlon 3A® or equivalent) as per manufacturer's directions. When a broadleaf herbicide is used, allow a minimum of 30 days before disturbing the site or completing seeding.
5. Disk soil within the project area in preparation for seeding.
6. Harrow or rake the soil to achieve the proper seedbed.



**Preparation for installation of native seed on a solar site.**



## Proposed Array Seed Mix for Medanos Solar

Common Name	Scientific Name	% of Mix	Seeds/ft <sup>2</sup>
<b>Grasses</b>			
Sideoats Grama	<i>Bouteloua curtipendula</i>	38.85%	11.10
Prairie Brome	<i>Bromus kalmii</i>	0.77%	0.30
Plains Oval Sedge	<i>Carex brevior</i>	2.69%	3.70
Bicknell's Sedge	<i>Carex bicknellii</i>	1.31%	1.10
Field Oval Sedge	<i>Carex molesta</i>	1.23%	1.50
Brown Fox Sedge	<i>Carex vulpinoidea</i>	0.77%	3.70
Silky Wild Rye	<i>Elymus villosus</i>	5.00%	1.30
Little Bluestem	<i>Schizachyrium scoparium</i>	25.92%	18.60
Prairie Dropseed	<i>Sporobolus heterolepis</i>	0.38%	0.30
<b>Forbs</b>			
Common Yarrow	<i>Achillea millefolium</i>	0.35%	2.90
Nodding Onion	<i>Allium cernuum</i>	0.23%	0.10
Lead Plant	<i>Amorpha canescens</i>	1.33%	1.00
Canada Anemone	<i>Anemone canadensis</i>	0.04%	0.00
Columbine	<i>Aquilegia canadensis</i>	0.04%	0.10
Common Milkweed	<i>Asclepias syriaca</i>	0.33%	0.10
Butterfly Milkweed	<i>Asclepias tuberosa</i>	0.31%	0.10
Sky Blue Aster	<i>Aster azureus</i>	0.15%	0.60
Canada Milk Vetch	<i>Astragalus canadensis</i>	1.04%	0.80
Calico Aster	<i>Aster lateriflorus</i>	0.04%	0.50
Partridge Pea	<i>Chamaecrista fasciculata</i>	3.07%	0.40
White Prairie Clover	<i>Dalea candidum</i>	3.92%	3.60
Purple Prairie Clover	<i>Dalea purpurea</i>	5.79%	5.00
Cream Gentian	<i>Gentiana flavida</i>	0.04%	0.30
Prairie Blazingstar	<i>Liatris pycnostachya</i>	0.23%	0.10
Slender Mountain Mint	<i>Pycnanthemum tenuifolium</i>	0.09%	1.70
Prairie Wild Rose	<i>Rosa arkansana</i>	0.28%	0.00
Black-eyed Susan	<i>Rudbeckia hirta</i>	1.85%	8.10
Gray Goldenrod	<i>Solidago nemoralis</i>	0.04%	0.60
Ohio Spiderwort	<i>Tradescantia ohiensis</i>	0.23%	0.10
Hoary Vervain	<i>Verbena stricta</i>	1.38%	1.90
Golden Alexanders	<i>Zizia aurea</i>	2.31%	1.20

**Seeding Rate: 13 lb/acre (70.5 seeds/square foot)**

## Overview of Vegetation Maintenance Medanos Solar

Maintenance of a site plays a vital role in the eventual success of any native landscape installation, especially during the establishment period of years one through three.

Active management in all areas of Medanos Solar should include an annual inspection followed by necessary vegetation maintenance to encourage healthy native species while discouraging non-native/invasive species. During the growing season of the first year of establishment, the site should be inspected a minimum of three times.

1. During the germination year, mow the project area to control annual weed development and to aid in the growth of the prairie seedlings by reducing weed competition. Optimum cutting height is typically 4 to 6 inches. The mowing conducted should be by machinery that finely mulches the clippings to prevent smothering of young plants.

Mowing in years one through three occurs to manage weed height and avoid reintroduction of weed seeds. Herbicides are rarely used in Year One to avoid collateral damage to young native plants.

2. Native prairie and grassland species have evolved to produce massive, deep root systems which enable them to endure long periods of drought. To develop these remarkable root systems, the plants produce a limited amount of above-ground vegetation during Year One. Years Two and Three will bring additional above-ground vegetation as the native species continue to grow toward their mature height.
3. In years following the first growing season, Integrated Vegetation Management (IVM) techniques are utilized to control annual, biennial and perennial weed species within the developing native landscape.

Typical IVM services include spot herbicide spraying, spot mowing, and herbicide wicking, in addition to site mowing. The equipment typically used on sites of this size are small tractors and ATVs mounted with the proper equipment, string trimmers, zero-turn mowers and flail mowers.



## Installation & Management Timeline for Medanos Solar

Year	Site Procedures
Install	<p>Site to be temp seeded prior to construction, as needed.            Final seeding with approved native seed mix including cover crop will follow installation of panels, final grading, and the majority of wiring.            Seeding can occur up to winter freeze-up.</p> <p>Project site inspection; monitoring for erosion.            SWPPP forms are to be completed by site contractor and submitted to IL EPA, NPDES and solar site owner/O&amp;M following final seeding.            Scorecard submitted to IL DNR by vegetation restoration firm. Subsequent site visit reports supplied to site owner/designated O &amp; M contact.</p>
Year 1	<p>Initial site visit between April or May in Champaign County IL based on local conditions.            Determine acceptable germination rate, inspect for erosion and/or winter equipment rut damage.            Report to site owner/O&amp;M contacts.            Subsequent visits include the first mowing in June followed by mowing trips in July, Aug and/or Sept, timing adjusted for local and seasonal conditions.            (3 complete site visits in Year 1.)            Project monitoring for erosion.</p>
Year 2	<p>May site inspection.            Site review to include complete site mowing, timing based on local site conditions.            Additional visits as needed to include Integrated Vegetation Management (IVM). Techniques utilized: Spot spraying, spot mowing, wicking, hand weeding and other methods used to control invasive species and weeds. (3 complete site visits including mowing)</p>
Year 3	<p>May site inspection.            IVM as defined in Year 2 above. (3 complete site visits including mowing)            Project monitoring. 3rd-year scorecard supplied to IL DNR by restoration firm.</p>
Year 4	<p>Spring/early summer site inspection.            Additional visits as needed utilizing IVM techniques described in Year 2.            Project monitoring. (2 complete site visits)</p>
Year 5	<p>1 Spring Dormant Mowing to mulch biomass.            IVM as defined in Year 2, above.            (1 to 1.5 complete site visits)            Project monitoring.</p>
Years 6 - 30:	<p>Vegetation management during year six and beyond includes annual spring site inspections followed by any necessary spot spraying or spot mowing, as needed. A full site mowing may be necessary and desirable for plant biomass reduction and vegetation health every three years, +/- as determined by vegetation professionals.</p>

Equipment used for site vegetation management includes zero turn mowers, UTVs mounted with customized spray equipment, string trimmers and flail mowers.

## Illinois Solar Site Pollinator Habitat Planning Form

**Use this form as a draft before completing the Illinois Planned Pollinator Habitat on Solar Sites Scorecard online**

### In Between and Under Solar Panels

1. **PLANNED PLANT DIVERSITY IN ROWS & UNDER SOLAR ARRAY** (choose up to 2)
- 4-6 species +5 pts
  - 7 or More species +8 pts
  - All Native Species (minimum 4 species) +10 pts

### Perimeter and Buffer Area

2. **VEGETATIVE BUFFER PLANNED ADJACENT TO THE SOLAR SITE** (choose all that apply)
- Buffer planned outside of array fencing +5 pts
  - Buffer is 30-49ft wide measured from array fencing +5 pts
  - Buffer is at least 50ft wide measured from array fencing +10 pts
  - Buffer has Native shrubs/trees that provide food for wildlife +5 pts
3. **SEEDS USED FOR NATIVE PERIMETER & BUFFER AREAS** (choose all that apply)
- Mixes are seeded using at least 20 seeds per square foot of Pure Live Seed or 40 Seeds per square foot on slopes > 5% +10 pts
  - All seeds are from a source within 150 miles of site +5 pts
  - At least 2% milkweed cover is planned to be established from seeds/plants +5 pts
4. **PLANNED # OF NATIVE SPECIES IN SITE PERIMETER & BUFFER AREA** (species with more than 1% cover)(choose 1)
- 5-10 species +2 pts
  - 10-15 species +5 pts
  - 16-20 species +10 pts
  - >20 species +15 pts

*Exclude invasive and non-native plant species from total*

5. **PLANNED PERCENT OF PERIMETER & BUFFER AREA DOMINATED BY NATIVE PLANT SPECIES** (choose 1)
- 26- 50 % +2 pts
  - 51-75 % +10 pts
  - More than 75% +15 pts

### Whole Site

6. **PLANNED PERCENT OF SITE VEGETATION COVER TO BE DOMINATED BY DESIRABLE WILDFLOWERS** (choose 1)
- 26- 50 % +2 pts
  - 51-75 % +10 pts
  - More than 75% +15 pts



7. **PLANNED SEASONS WITH AT LEAST THREE BLOOMING NATIVE SPECIES PRESENT** (choose all that apply)
- Spring (April-May) +5 pts
  - Summer (June-August) +5 pts
  - Fall (September-October) +5 pts
8. **HABITAT SITE PREPARATION PRIOR TO IMPLEMENTATION** (choose all that apply)
- Soil preparation done to promote germination and reduce erosion as appropriate for the site. +10 pts
  - Measures taken to control weeds prior to seeding +10 pts
  - None -10 pts
9. **AVAILABLE HABITAT COMPONENTS WITHIN 0.25 MILES** (choose all that apply)
- Native bunch grass for bee nesting +2 pts
  - Native trees/shrubs for bee nesting +2 pts
  - Clean, perennial water sources +2 pts
  - Created habitat nesting features +2 pts
10. **SITE PLANNING AND MANAGEMENT**(choose all that apply)
- Detailed establishment and management plan developed +10 pts
  - Signage legible at forty or more feet stating "pollinator friendly solar habitat" +3 pts
11. **INSECTICIDE RISK** (choose all that apply)
- Planned on-site use of insecticide or pre-planting seed/plant treatment (excluding buildings/electrical boxes, etc.) -40 pts
  - Communication/registration with local chemical applicators or on www.fieldwatch.com to prevent drift +5 pts

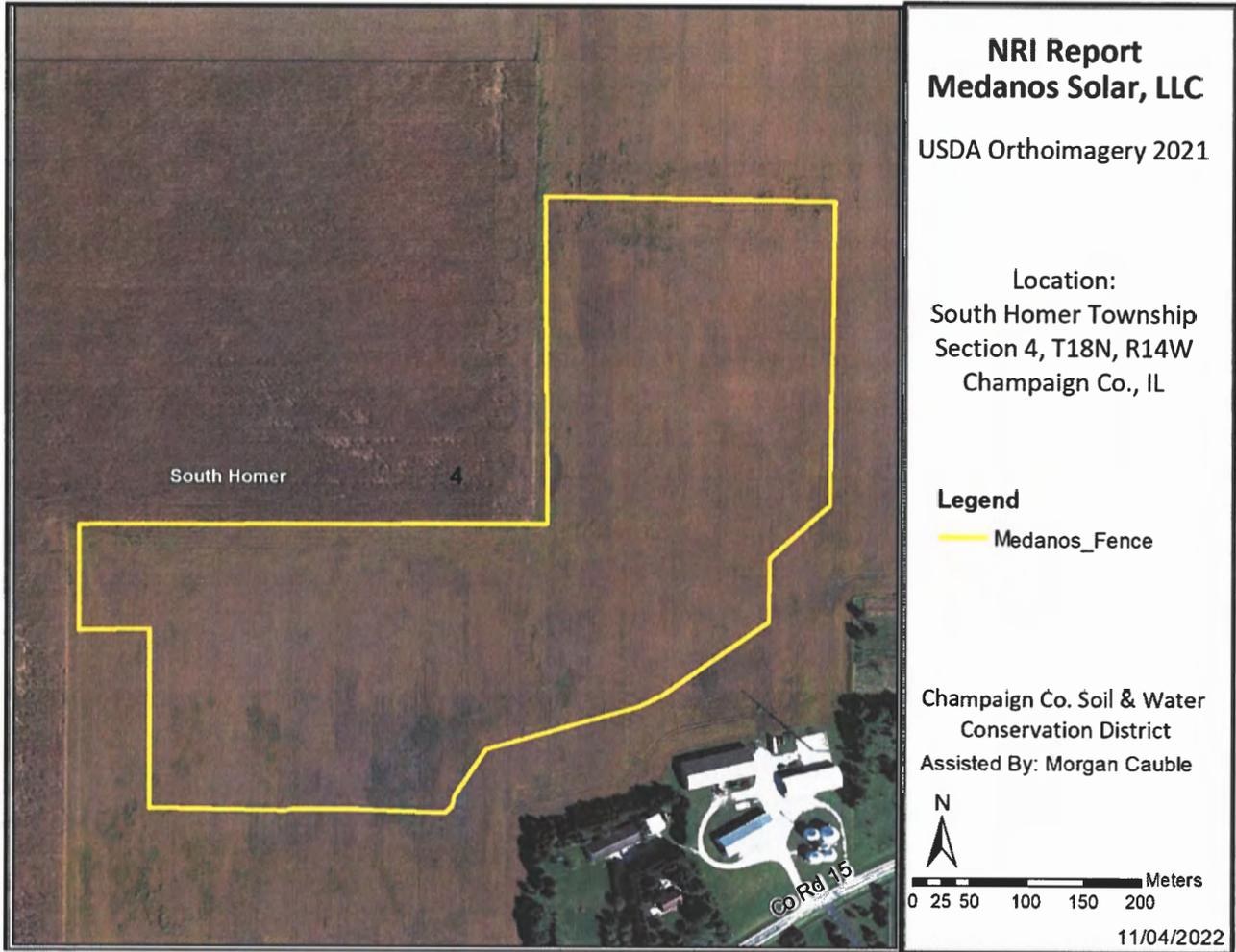
Total Points: 99  
 Meets Preliminary Pollinator Standards - 85  
 Provides Exceptional Habitat - 110 and higher

Owner: Medanos Solar, LLC by Cultivate Power, LLC  
 Vegetation Consultant: Natural Resource Services, Inc  
 Project Location: Champaign County IL  
 Project Size: 48.4 acres  
 Final Seeding Date: TBD pending permitting

*This form is designed (with the help of the Solar Site Pollinator Guidelines found on IDNR's website) to guide owners or managers of solar sites to meet the requirements to be able to claim a site is pollinator friendly according to the "Pollinator Friendly Solar Site Act (525 ILCS 55)". This form is for company records only and does not grant the title of a Pollinator Friendly Solar Site until the "Illinois Planned Pollinator Habitat on Solar Sites Scorecard" is completed with a score of 85 or higher on IDNR's website. This preliminary recognition is good for 3yrs, after which the "Established Pollinator Habitat on Solar Sites Scorecard" will need to be completed every 5 years to maintain recognition as a Pollinator Friendly Solar Site.*

12/3/2019

NOVEMBER 8, 2022



NATURAL RESOURCE INFORMATION (NRI)  
**RECEIVED** REPORT 22.02

NOV 22 2022

PETITIONER: MEDANOS SOLAR, LLC

CHAMPAIGN CO. P & Z DEPARTMENT

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

<b>Champaign County Soil and Water Conservation District Natural Resource Information Report (NRI)</b>
--

Date District Board Reviewed Application	November 22, 2022
Applicant's Name	Medanos Solar, LLC
Contact Person	Kiera Gavin
Size of Subject Property	46.4 acres
Present Zoning	8100 - Agriculture
Proposed Zoning	n/a
Present Land Use	Agricultural and farm building
Proposed Land Use	Solar Farm, Agricultural, and Residential

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

Report Prepared By: Morgan Cauble, Conservation Coordinator

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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.

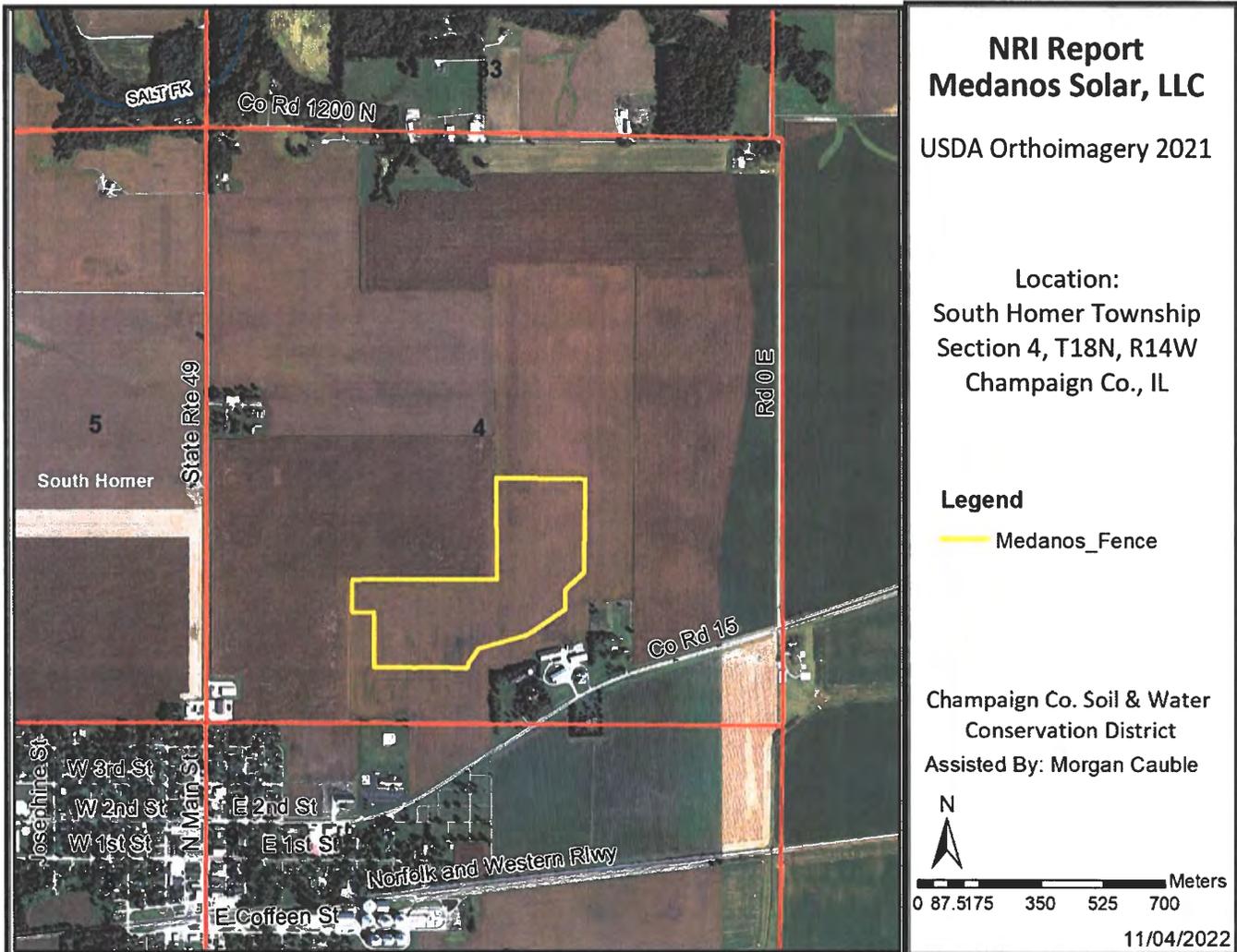
Section 22.02a The Soil and Water Conservation District shall make all natural resource information available to the appropriate county agency or municipality in the promulgation of zoning, ordinances or variances. Any person who petitions any municipality or county agency in the district for variation, 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 Medanos Solar Farm near Homer. The property is located in the southern half of Section 4, Township 18N, Range 14W 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. A portion 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 Drainage District #1 of South Homer. Please contact drainage district officials for questions or concerns regarding drainage management.
4. The average Land Evaluation (LE) score for this site is: 98.6. See pages 13-14.
5. Wetlands are present on the subject property. It is recommended to take precautions to protect wetland and water quality and health during project lifespan. See pages 17-18.
6. There are records of sensitive areas and endangered species near the subject property. It is recommended to take precautions to protect these resources during the project lifespan. See pages 19-20.

## 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.

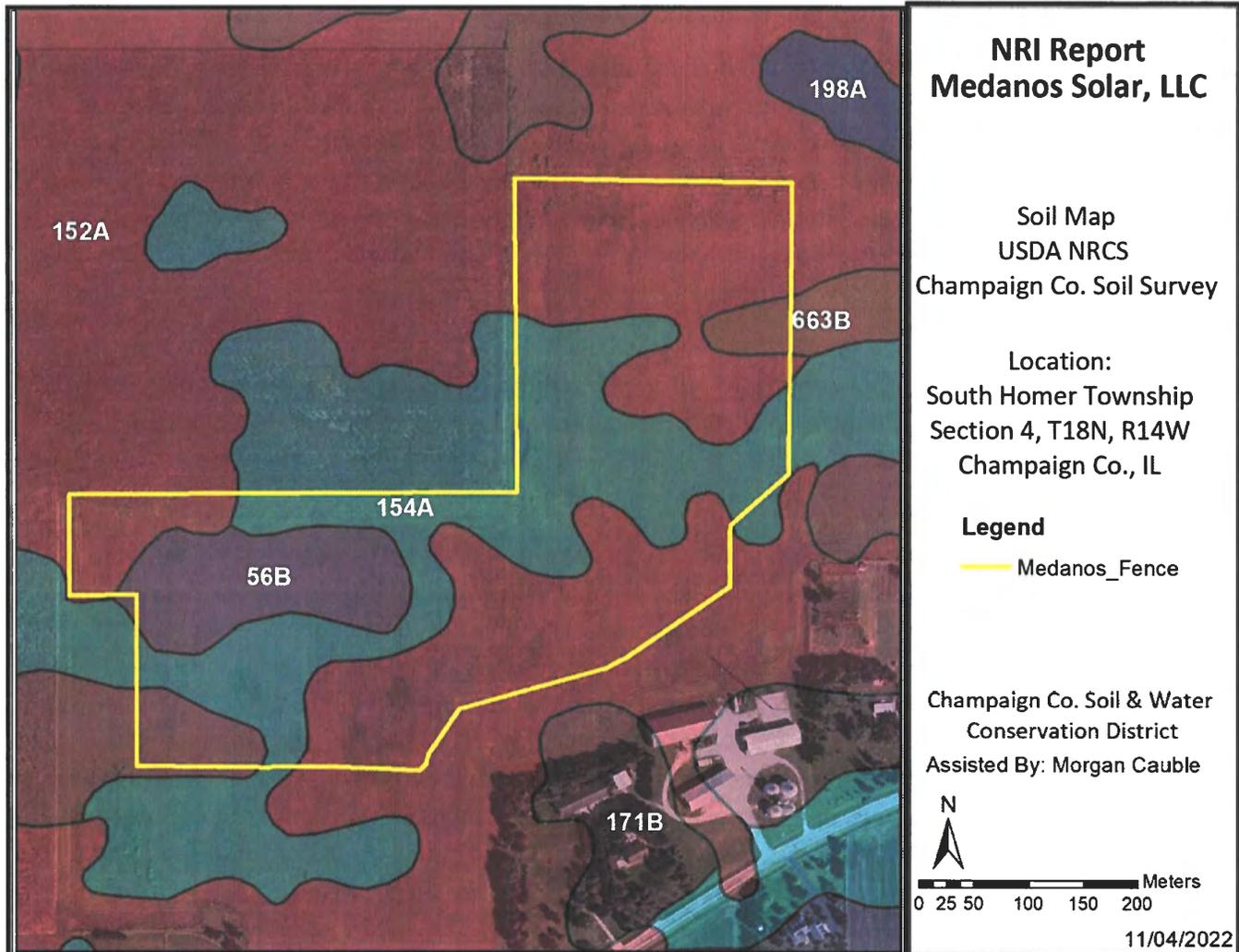


Table 1. Soil map unit descriptions.

Map Unit Symbol	Description	Acres	Percent of Area
152A	Drummer silty clay loam, 0-2% slopes	23.2	50.0%
154A	Flanagan silt loam, 0-2% slopes	15.2	32.8%
56B	Dana silt loam, 2-5% slopes	5.5	11.9%
171B	Catlin silt loam, 2-5% slopes	1.6	3.4%
663B	Clare silt loam, 2-5% slopes	0.8	1.8%

### 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.

Septic Tank Absorption Fields: 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: depth to saturated zone, slow water movement, ponding	23.2	50.0%
154A	Very limited: ponding, depth to saturated zone, slow water movement	15.2	32.8%
56B	Very limited: Depth to saturated zone, ponding, slow water movement	5.5	11.9%
171B	Very limited: depth to saturated zone, slow water movement	1.6	3.4%
663B	Very limited: depth to saturated zone, seepage, slow water movement	0.8	1.8%

For the subject property: 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.

Dwellings and Small Commercial Buildings: 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.

Table 3. Dwellings and small commercial buildings limitations.

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	23.2	50.0%
154A	Very limited: Ponding, depth to saturated zone, shrink-swell	Somewhat limited: depth to saturated zone, shrink-swell	Somewhat limited: depth to saturated zone, shrink-swell	15.2	32.8%
56B	Very limited: Ponding, depth to saturated zone, shrink-swell	Somewhat limited: depth to saturated zone, shrink-swell	Somewhat limited: depth to saturated zone, shrink-swell	5.5	11.9%
171B	Somewhat limited: depth to saturated zone, shrink-swell	Somewhat limited: shrink-swell	Somewhat limited: shrink-swell	1.6	3.4%
663B	Somewhat limited: depth to saturated zone, shrink-swell	Somewhat limited: shrink-swell	Somewhat limited: shrink-swell	0.8	1.8%

**Ground-based Solar Arrays:** Ground-based solar arrays are sets of photovoltaic panels that are not situated on a building or pole. These installations consist of a racking system that holds the panel in the desired orientation and the foundation structures that hold the racking system to the ground. Soil-penetrating anchoring systems can be used where the soil conditions are not limited. Installation of these systems requires some power equipment for hauling components and either driving piles, turning helices, or boring holes to install the anchoring apparatus. Ballast anchor systems can be used in some places where soil-penetrating systems cannot, such as in shallow or stony soil. Also, since they do not penetrate the soil, ballast systems can be used where the soil is contaminated and disturbance is to be avoided. The soil in the area must have sufficient strength to be able to support the vehicles that haul the ballast and the machinery to install it.

Table 4. Ground-based solar arrays limitations.

Map Unit Symbol	Ballast Anchor Systems	Soil-penetrating Anchor Systems	Acres	Percent of Area
152A	Very limited: Ponding, depth to saturated zone, frost action, low strength, slope shape across	Very limited: Ponding, depth to saturated zone, frost action, low strength, steel corrosion	23.2	50.0%
154A	Very limited; low strength, depth to saturated zone, frost action, ponding, slope shape across	Very limited; low strength, shrink-swell, steel corrosion, depth to saturated zone, frost action, ponding	15.2	32.8%
56B	Very limited: frost action, low strength, hillslope position, slope shape across, depth to saturated zone	Very limited; frost action, low strength, steel corrosion, hillslope position, slope shape across, ponding	5.5	11.9%
171B	Very limited; frost action, low strength, hillslope position, slope shape across	Very limited; frost action, low strength, steel corrosion, shrink-swell, hillslope position	1.6	3.4%
663B	Very limited; frost action, low strength, hillslope position, slope shape across	Very limited; frost action, low strength, steel corrosion, hillslope position, shrink-swell	0.8	1.8%

### 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.

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

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

- Group C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Note: if a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D) the first letter is for drained areas and the second is for undrained areas.

Surface Runoff: 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.

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

Ponding: 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).

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

- Duration: Expressed as *extremely brief* if 0.1 hour to 4 hours; *very brief* if 4 hours to 2 days; *brief* if 2 to 7 days; *long* if 7 to 30 days; and *very long* if more than 30 days.
- Frequency: Expressed as *none* (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 local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Table 5. Soil water (wetness) features.

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	0.0-0.5	Frequent	-	None
154A	C/D	Low	1.0-2.0	3.7-5.9	Perched	-	None	-	None
56B	C	Low	2.0-3.5	3.3-5.0	Perched	-	None	-	None
171B	C	Low	2.0-3.5	3.7-5.4	Perched	-	None	-	None
663B	C	Low	2.0-3.5	6.0	Apparent	-	None	-	None

### 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.

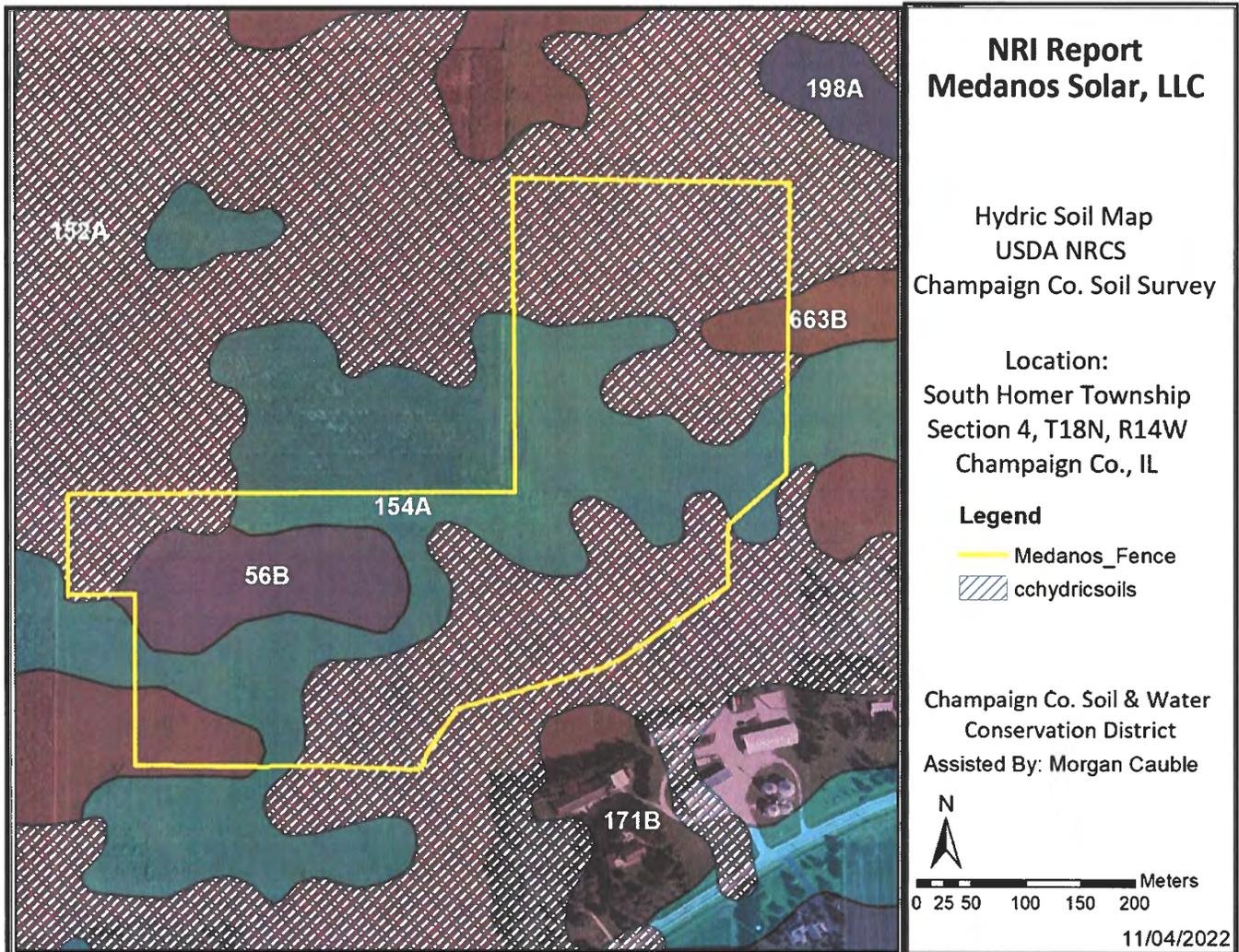
On most agricultural soils in the county that are poorly or somewhat poorly drained, subsurface agriculture drainage tile occurs. This expedites drainage but must be maintained and undisturbed so the soil does not return to its original hydrologic condition.

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.

Table 6. Hydric soils.

Map Unit Symbol	Drainage Class	Hydric Designation	Acres	Percent of Area
152A	Poorly drained	Hydric	23.2	50.0%
154A	Somewhat poorly drained	Non-hydric	15.2	32.8%
56B	Moderately well drained	Non-hydric	5.5	11.9%
171B	Moderately well drained	Non-hydric	1.6	3.4%
663B	Moderately well drained	Non-hydric	0.8	1.8%
			<b>Percent Hydric</b>	<b>50.0%</b>



## 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 brome grass, 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: <http://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>.

Table 7. Soil erosion potential.

Map Unit Symbol	Slope	Rating	Acres	Percent of Area
152A	0.5%	Slight	23.2	50.0%
154A	0.9%	Slight	15.2	32.8%
56B	3.0%	Moderate	5.5	11.9%
171B	3.0%	Moderate	1.6	3.4%
663B	3.0%	Moderate	0.8	1.8%

### 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 not prime farmland.

Table 8. Prime farmland designation.

Map Unit Symbol	Prime Designation	Acres	Percent of Area
152A	Prime farmland if drained	23.2	50.0%
154A	All areas are prime farmland	15.2	32.8%
56B	All areas are prime farmland	5.5	11.9%
171B	All areas are prime farmland	1.6	3.4%
663B	All areas are prime farmland	0.8	1.8%
<b>Percent Prime Farmland</b>			<b>100%</b>

### 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.

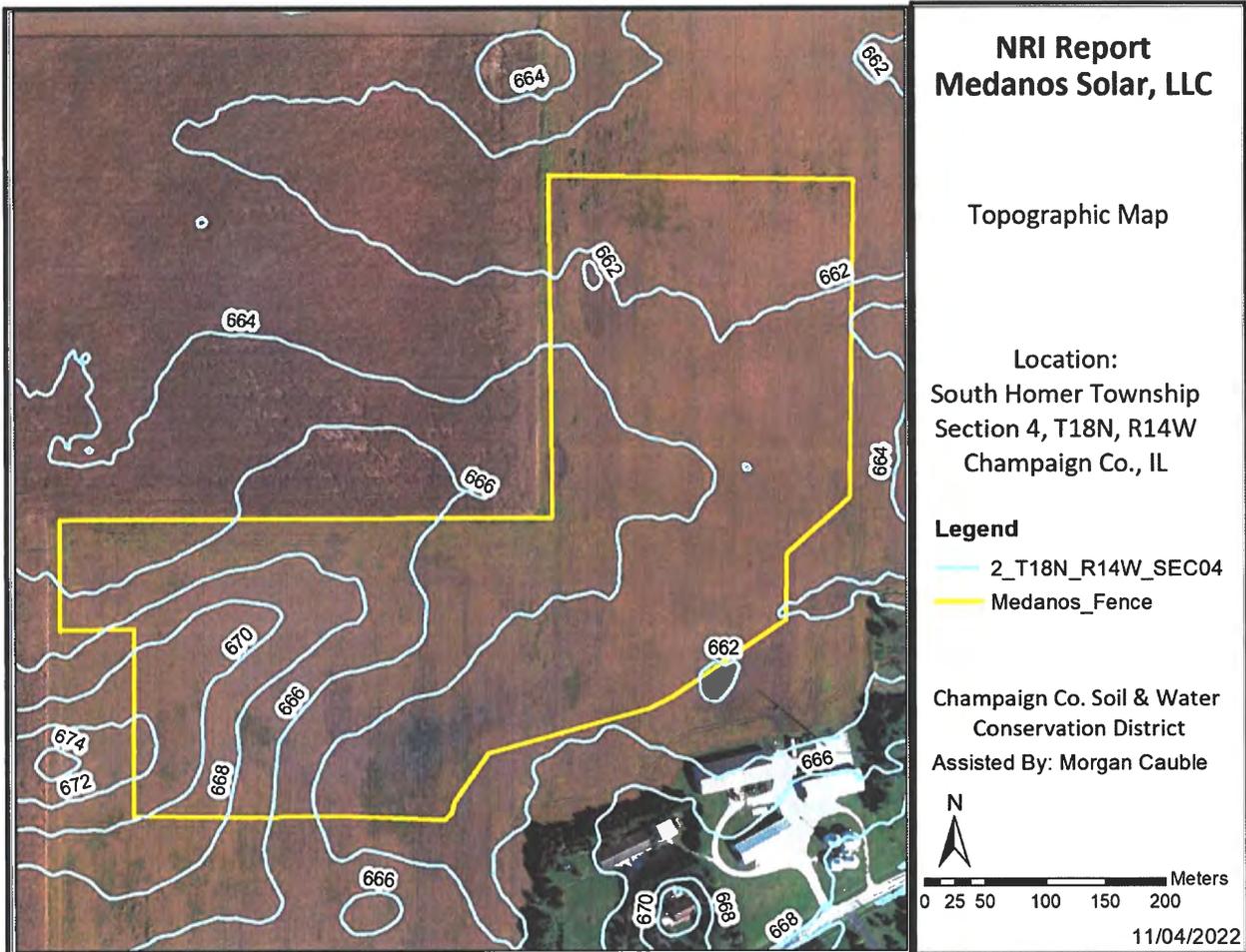
Table 9. Land Evaluation and Site Assessment System score.

Map Unit Symbol	Value Group	Relative Value	Acres	Product (Relative Value*Acres)
152A	2	100	23.2	2320.0
154A	1	100	15.2	1520.0
56B	4	91	5.5	500.5
171B	3	94	1.6	150.4
663B	4	91	0.8	72.8
Totals			46.3	4563.7
LE Score		LE = 4563.7/46.3		LE = 98.6

For the subject property: the overall Land Evaluation (LE) score is 98.6.

### 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.



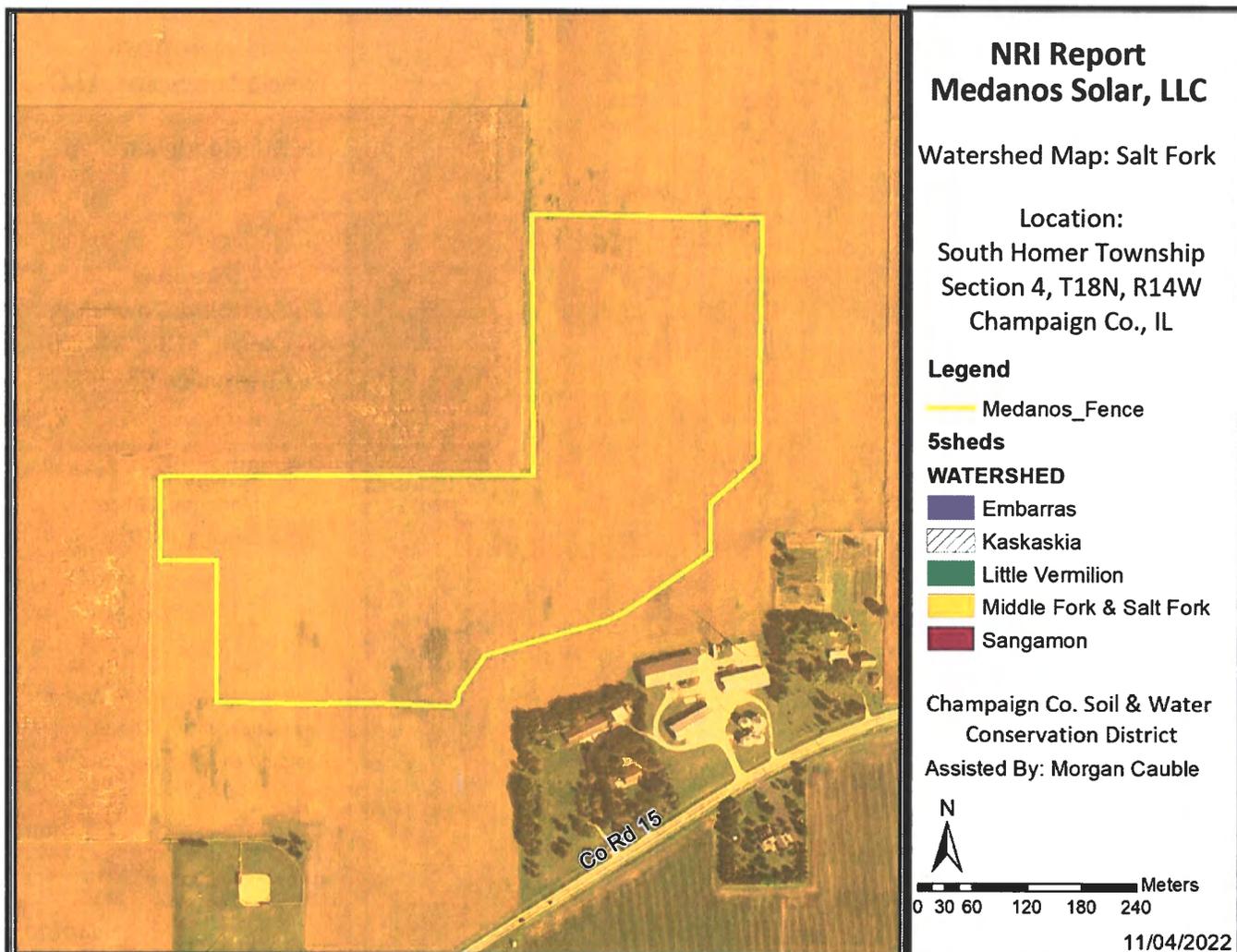
## Watershed Information

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 Salt Fork Watershed.



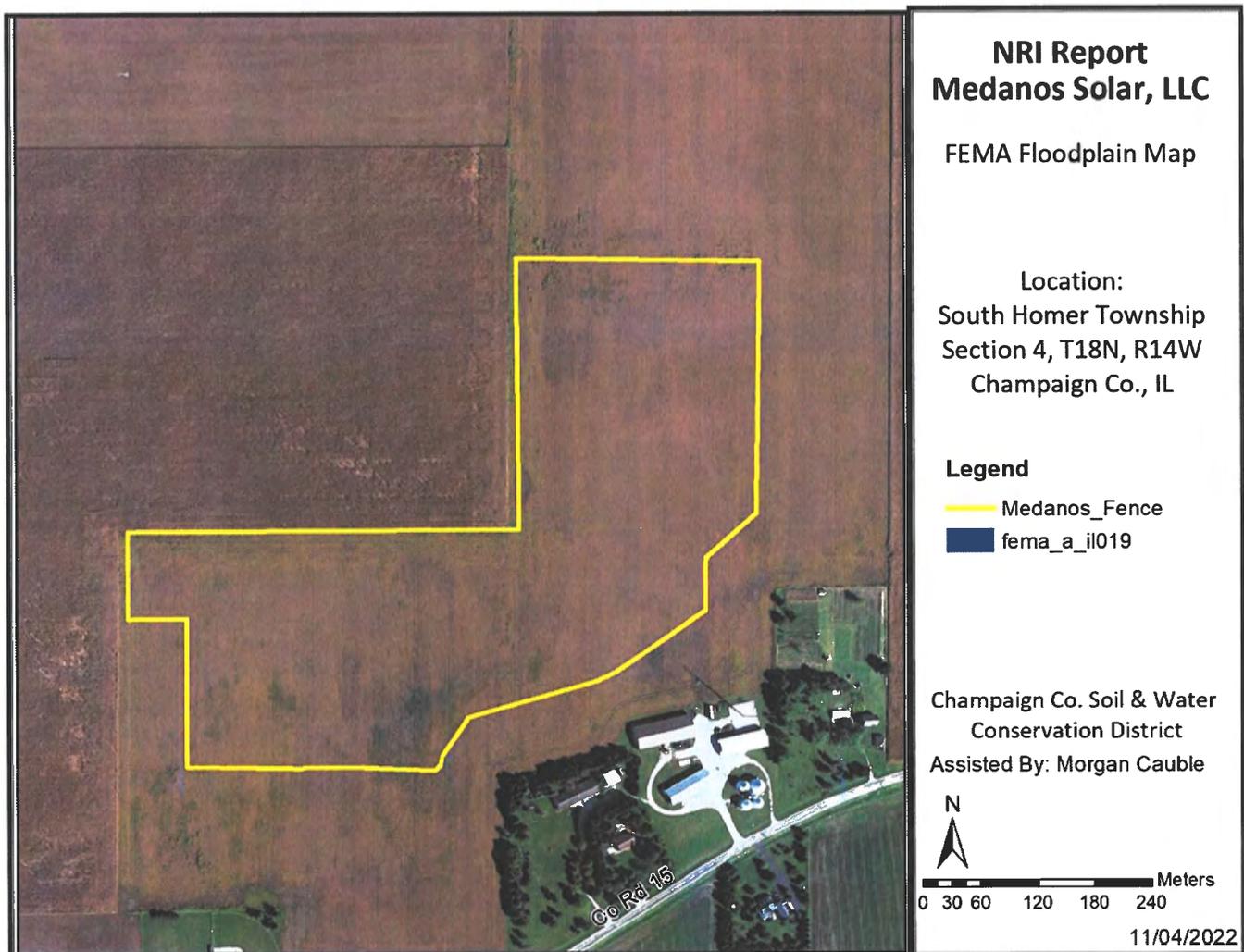
## Floodplain and Wetland Information

### 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.

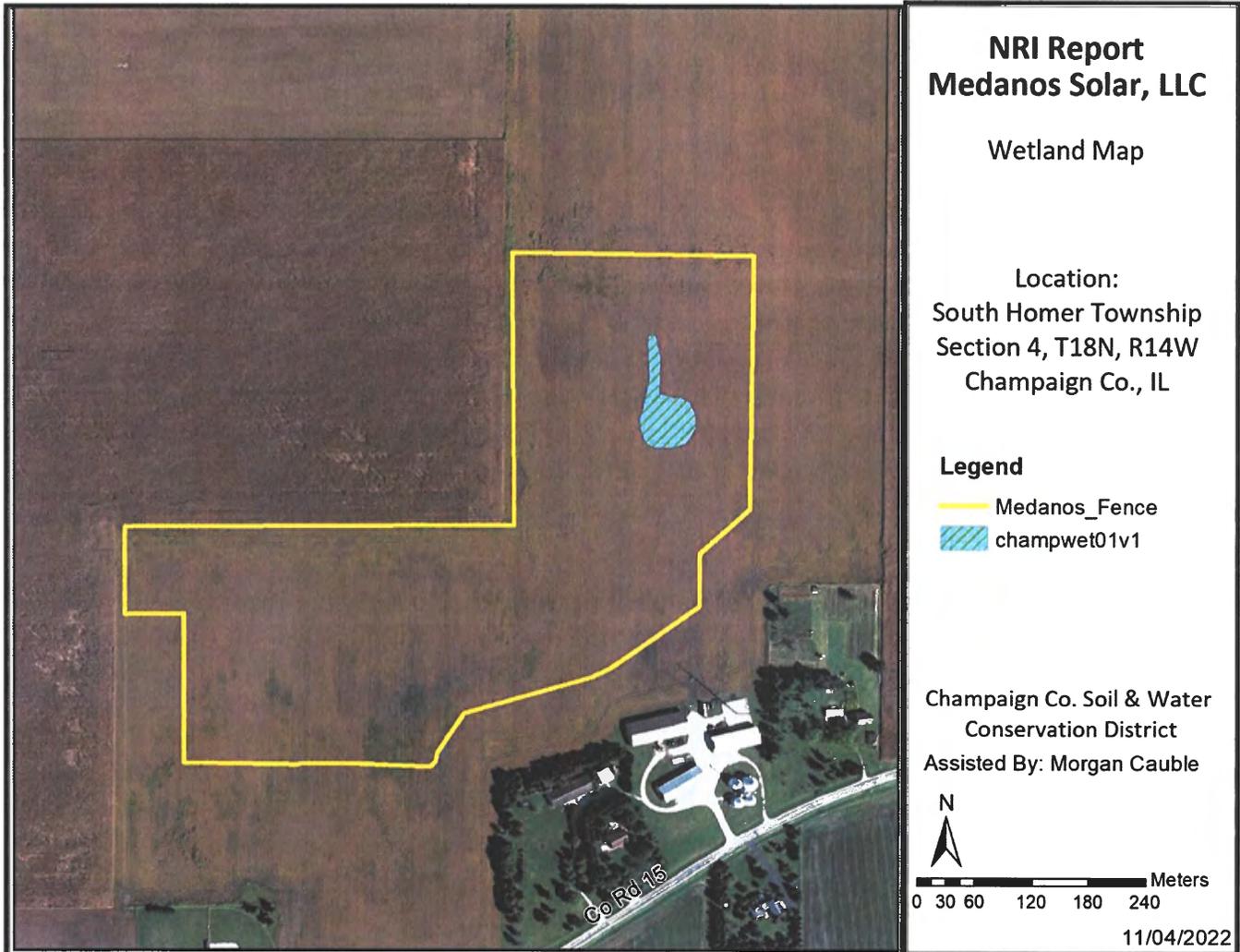
For the subject property: a floodplain is not present near the property.



### 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 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.

For the subject property: as shown on the below EcoCAT, there is record of sensitive areas and endangered species in or near the subject property. It is recommended to take precautions to protect these resources.



**Applicant:** NRCS Champaign County Field Office  
**Contact:** Taylor Shedd  
**Address:** 2110 W. Park court suite C  
 Champaign . IL 61821

**IDNR Project Number:** 2306200  
**Date:** 11/08/2022

**Project:** Champaign  
**Address:** Champaign, Champaign

**Description:** Champaign

### Natural Resource Review Results

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

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

Edgewood Farm INAI Site  
 Salt Fork Vermilion River Segment INAI Site  
 Edgewood Farm Land And Water Reserve  
 Bigclaw Crayfish (*Orconectes placidus*)  
 Bigeye Chub (*Hybopsis amblops*)  
 Bluebreast Darter (*Etheostoma camurum*)  
 Monkeyface (*Quadrula metanevra*)  
 Purple Wartyback (*Cyclonaias tuberculata*)  
 Purple Wartyback (*Cyclonaias tuberculata*)  
 Rainbow (*Villosa iris*)  
 Wavy-Rayed Lampmussel (*Lampsilis fasciola*)  
 Wavy-Rayed Lampmussel (*Lampsilis fasciola*)

#### Location

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

**County:** Champaign

**Township, Range, Section:**  
 18N, 14W, 4



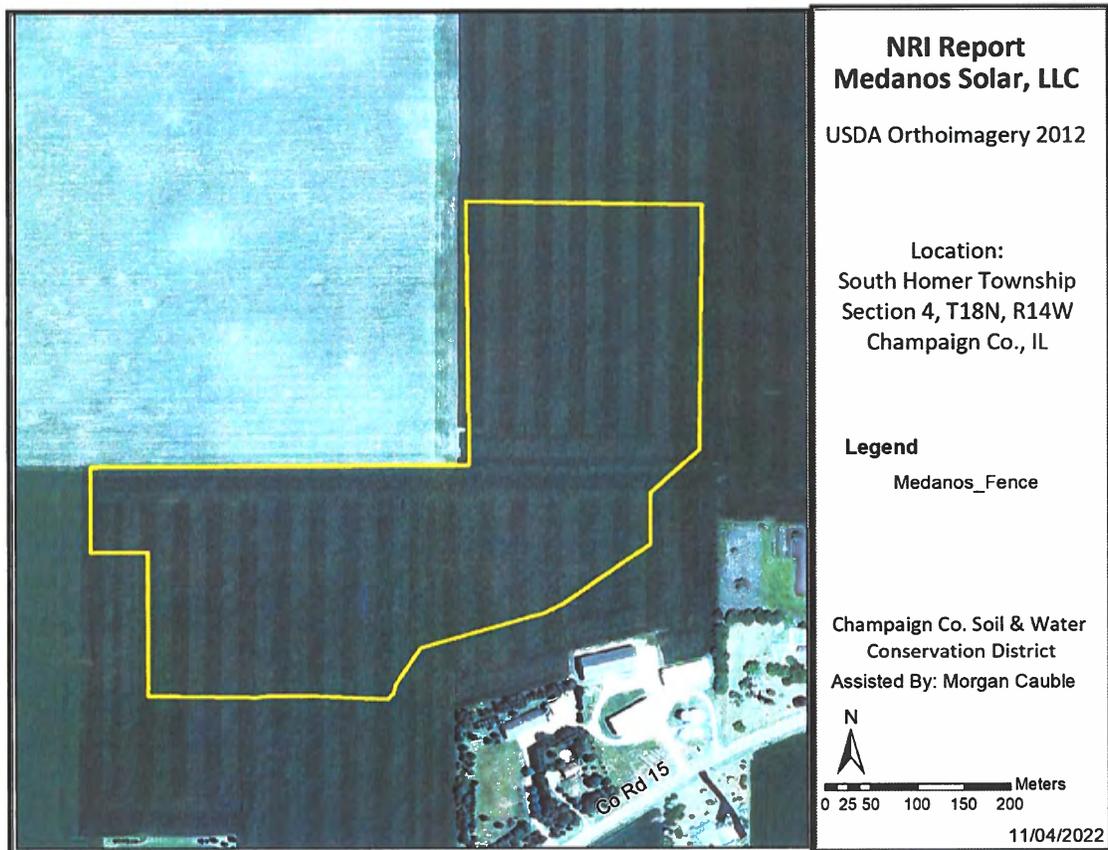
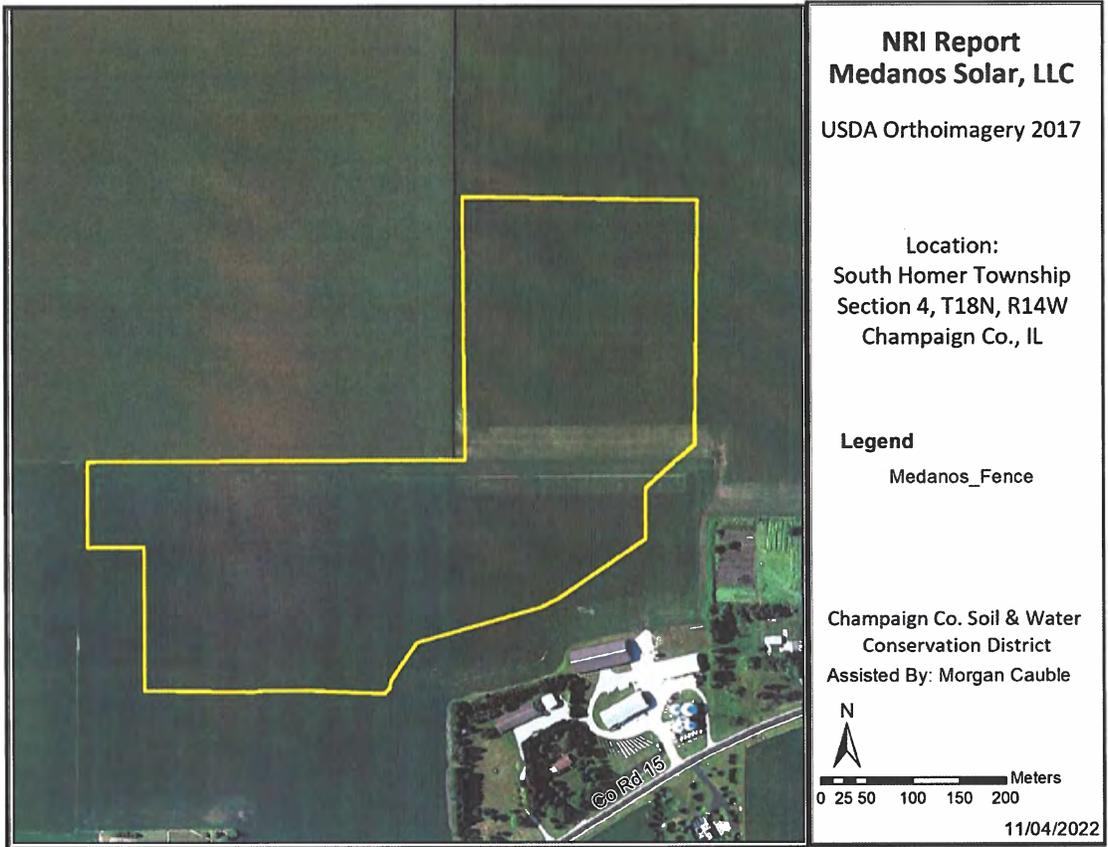
**IL Department of Natural Resources  
 Contact**  
 Impact Assessment Section  
 217-785-5500  
 Division of Ecosystems & Environment

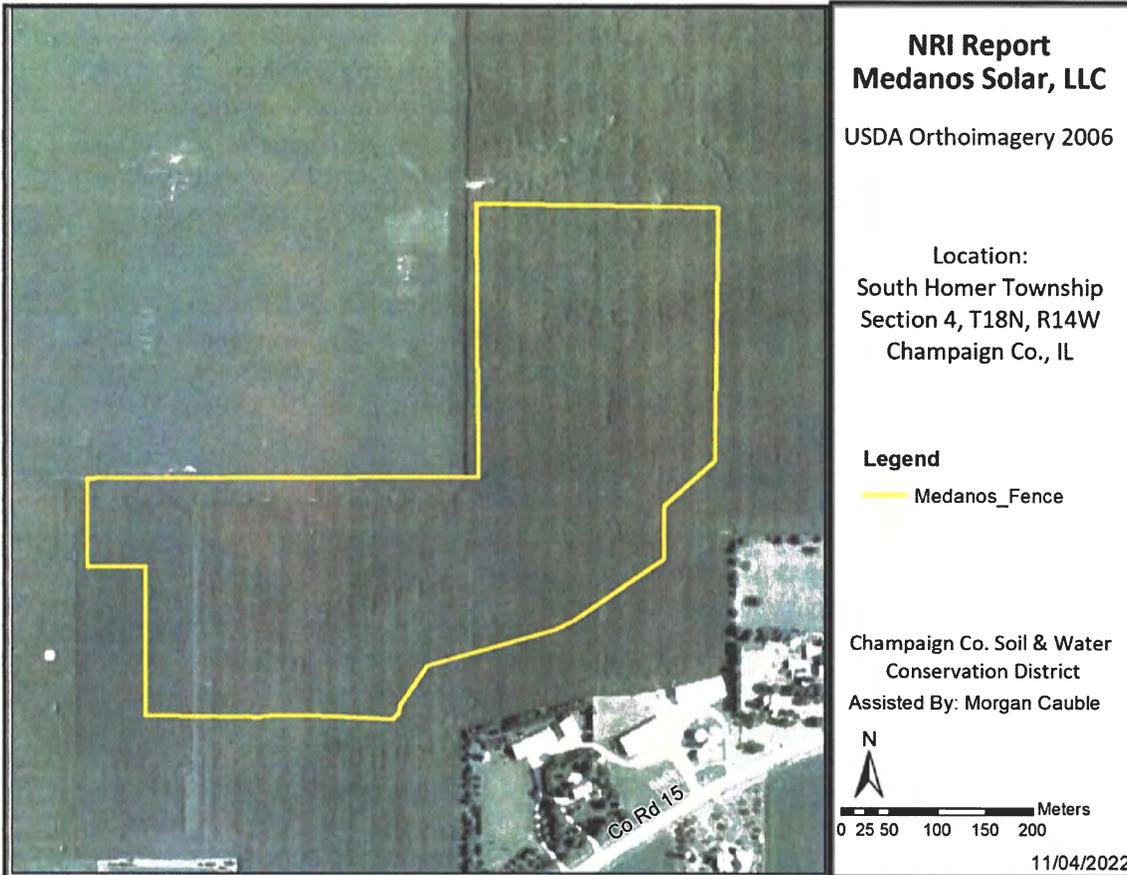
**Government Jurisdiction**  
 U.S. Department of Agriculture

### 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.

### Historic Aerial Photos





## Glossary and Acronyms

**Agriculture** – 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.

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

**B.G.** – below grade. Under the surface of the Earth.

**Bedrock** – indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

**Flooding** – indicates frequency, duration, and period during year when floods are likely to occur.

**High Level Management** – the application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high-quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reaction and near-optimum levels of available nitrogen, phosphorus, and potassium for individual crops are maintained. Efficient use is made of available crop residues, barnyard manure, and/or green manure crops. All operations, when combined efficiently and timely, can create favorable growing conditions and reduce harvesting losses (within limits imposed by weather).

**High Water Table** – a seasonal 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.

**Water Table, Apparent** – 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.

**Water Table, Artesian** – a water table under hydrostatic head, generally beneath an impermeable layer. When layer is penetrated, the water level rises in the uncased borehole.

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

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

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

**Hydric Soil** – 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).

**Intensive Soil Mapping** – 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.

**Palustrine** – name given to inland fresh water wetlands.

**Permeability** – 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

Potential Frost Action – damage that may occur to structures and roads due to ice lens formation, causing upward and lateral soil movement. Based primarily on soil texture and wetness.

Prime Farmland – 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)

Productivity Indexes – 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.

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

Shrink-Swell Potential – indicates volume changes to be expected for the specific soil material with changes in moisture content.

Soil Mapping Unit – 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.

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

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

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

Watershed – an area of land that drains to an associated water resource, such as a wetland, river, or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams, ditches, and ponding areas, such as detention structures, natural ponds, or wetlands.

Wetland – 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.

**Susan Burgstrom**

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**From:** John Hall  
**Sent:** Tuesday, November 29, 2022 11:39 AM  
**To:** Susan Burgstrom  
**Subject:** FW: Proposed Solar Project - Champaign County

FYI

**RECEIVED**

**NOV 29 2022**

**CHAMPAIGN CO. P & Z DEPARTMENT**

**From:** Jeff Blue <jblue@co.champaign.il.us>  
**Sent:** Tuesday, November 29, 2022 11:36 AM  
**To:** 'Kiera Gavin' <gavin@cultivatepower.co>  
**Cc:** John Hall <jhall@co.champaign.il.us>  
**Subject:** RE: Proposed Solar Project - Champaign County

Based on the summary of road use provided I agree to waive the requirements of subparagraphs 6.1.5 G.(1), (2), and (3) of the county zoning ordinance which pertain to road use agreement for the roads within the jurisdiction of the Champaign County Highway Department.

Jeff Blue, P.E.  
Champaign County Engineer

**From:** Kiera Gavin <gavin@cultivatepower.co>  
**Sent:** Tuesday, November 29, 2022 9:23 AM  
**To:** Jeff Blue <jblue@co.champaign.il.us>  
**Subject:** Re: Proposed Solar Project - Champaign County

**CAUTION:** External email, be careful when opening.

Hi Jeff,  
I have this anticipate summary of road use from our engineer below. Let me know if this is sufficient.  
Thanks much,  
Kiera

1. Major Deliveries during the first 1-2 months: 18-wheeler 50' trailers or flat beds (35k lbs w/o material weight): 5-6 deliveries for modules spread once a day for a week; 1 delivery for inverters, 1 delivery for transformers, 1 delivery for switchgear, 1 delivery for other electrical equipment, and 5-6 deliveries for racking once a day for a week
  - a. (2) 5-ton pile drivers
  - b. (2) construction extension fork lift (5 tons each)
  - c. (2) 20-30 ton excavators
2. Construction Managers usually drive large pick-ups.
3. Construction duration/personnel - 30 workers on site for 4-6 months with a peak of up to 50 workers per day during the middle months of construction.

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**From:** Jeff Blue <jblue@co.champaign.il.us>  
**Date:** Monday, November 21, 2022 at 9:20 AM

**To:** Kiera Gavin <[gavin@cultivatepower.co](mailto:gavin@cultivatepower.co)>  
**Subject:** RE: Proposed Solar Project - Champaign County

Please provide the information that is referred to in 6.1.5 (2) a. for my review and if I don't believe the loads are substantial enough to require a RUA I will waive the requirements as you have requested.

- a. Identify all such public STREETS or portions thereof that are intended to be used by the Applicant during construction of the PV SOLAR FARM as well as the number of loads, per axle weight of each load; and type of equipment that will be used to transport each load.

Jeff

**From:** Kiera Gavin <[gavin@cultivatepower.co](mailto:gavin@cultivatepower.co)>  
**Sent:** Monday, November 21, 2022 11:13 AM  
**To:** Jeff Blue <[jblue@co.champaign.il.us](mailto:jblue@co.champaign.il.us)>  
**Subject:** Re: Proposed Solar Project - Champaign County

**CAUTION:** External email, be careful when opening.

Thanks - appreciate the quick replies.  
Can you please follow up to explicitly state that you agree to waive the requirements of subparagraphs 6.1.5 G.(1), (2), and (3) of the county zoning ordinance (attached) which pertain to road use agreement for the roads within your jurisdiction? I will follow up with Homer directly to either get a waiver or an RUA for their roads.  
Thank you,  
Kiera

---

**From:** Jeff Blue <[jblue@co.champaign.il.us](mailto:jblue@co.champaign.il.us)>  
**Date:** Monday, November 21, 2022 at 10:41 AM  
**To:** Kiera Gavin <[gavin@cultivatepower.co](mailto:gavin@cultivatepower.co)>  
**Subject:** RE: Proposed Solar Project - Champaign County

So County Road 1100N (East Second Street) is under the jurisdiction of the Village of Homer (Red Circle) from IL-49 to Church Street and then becomes a county highway east of there (Purple). I don't foresee any road use permit for our section of the road, but you will need to contact the Village for their section.

Jeff

**From:** Kiera Gavin <[gavin@cultivatepower.co](mailto:gavin@cultivatepower.co)>  
**Sent:** Monday, November 21, 2022 9:02 AM  
**To:** Jeff Blue <[jblue@co.champaign.il.us](mailto:jblue@co.champaign.il.us)>  
**Subject:** Re: Proposed Solar Project - Champaign County

**CAUTION:** External email, be careful when opening.

Hi Jeff,  
Understood re. access permit – we are early stages of the project right now but will certainly go through the access permit process ahead of construction.

For route, I anticipate we would be coming off of 74 → 49 → County Road 1100 N.

For this community scale project, we expect a 3-4 month construction period, and then only approximately 1 passenger vehicle per month during project lifetime for ongoing maintenance.

Thanks,  
Kiera

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**From:** Jeff Blue <[jblue@co.champaign.il.us](mailto:jblue@co.champaign.il.us)>  
**Date:** Monday, November 21, 2022 at 8:52 AM  
**To:** Kiera Gavin <[gavin@cultivatepower.co](mailto:gavin@cultivatepower.co)>  
**Subject:** RE: Proposed Solar Project - Champaign County

You will definitely need an access permit from our road. As far as a RUA, can you give me some more details on the routes that will be used to haul in materials and construction supplies?

Jeff

**From:** Kiera Gavin <[gavin@cultivatepower.co](mailto:gavin@cultivatepower.co)>  
**Sent:** Friday, November 18, 2022 1:55 PM  
**To:** Jeff Blue <[jblue@co.champaign.il.us](mailto:jblue@co.champaign.il.us)>  
**Subject:** Proposed Solar Project - Champaign County

**CAUTION:** External email, be careful when opening.

Hi Jeff,

I'm reaching out to share info about a proposed solar farm outside of Homer. I'm working through the special use permit approval process in the County right now. The county ordinance states that for a community solar farm, we can either enter into a road use agreement or you can waive the need for the agreement after reviewing the project.

I've attached our proposed site plan for the project – we will access the site off of County Road 1100 N (E 2<sup>nd</sup> Street on the edge of Homer).

Let's please connect next week over email or phone if you have the chance to review the project.

Thanks much,  
Kiera Gavin  
Cultivate Power  
847-736-8690

**Susan Burgstrom**

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**From:** villageofhomer@gmail.com  
**Sent:** Monday, December 12, 2022 12:05 PM  
**To:** Susan Burgstrom  
**Cc:** jimhomertrustee@gmail.com  
**Subject:** Proposed Solar Farm, Homer



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500 E Second St, Homer, IL 61849, Telephone (217)896-2521  
Email: [villageofhomer@gmail.com](mailto:villageofhomer@gmail.com), Fax (217)896-2559  
[homervillage.com](http://homervillage.com)  
An Equal Opportunity Provider and Employer

Champaign County Zoning Board,

The Village of Homer Board of Trustees voted on November 14<sup>th</sup>, 2022, to not oppose the proposed solar farm that is being developed by Cultivate Power Medanos Solar LLC. This vote was based on the latest proposed site plan dated November 1, 2022. This includes a 480' set back from the Homer Village Hall property located at 500 E Second St pin # 26-30-04-124-004. Also includes a 40' drain tile corridor with a 30' drain tile set back over the 24" Village storm drain tile. It was also stated the there would be no damage done to the tile from the construction or future maintenance of the access road or buried electrical service lines. If you have any further questions, please feel free to contact me at 217/896-2521.

Sincerely,  
Jim White  
Village of Homer Mayor

**RECEIVED**  
DEC 12 2022  
CHAMPAIGN CO. P & Z DEPARTMENT

### 074-S-22 Site Images



**From CR 1100N facing NE to subject property (Homer Village Hall at left)**



**From CR 1100N facing north to subject property**

## 074-S-22 Site Images



**On CR 1100N facing west to Village of Homer**

***PRELIMINARY DRAFT***

**074-S-22**

**SUMMARY OF EVIDENCE, FINDING OF FACT  
AND FINAL DETERMINATION  
of  
Champaign County Zoning Board of Appeals**

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Final Determination: ***{RECOMMEND APPROVAL / RECOMMEND DENIAL}***

Date: ***{December 29, 2022}***

Petitioners: **Medanos Solar LLC, via agent Kiera Gavin, and participating landowner Terry Wolf**

Request: **Authorize a Community PV Solar Farm with a total nameplate capacity of 5 megawatts (MW), including access roads and wiring, in the AG-1 and AG-2 Agriculture Zoning Districts, and including the following waivers of standard conditions:**

**Part A: A waiver for a distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 feet), per Section 6.1.5 B.(2)a. of the Zoning Ordinance.**

**Part B: A waiver for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer prior to consideration of the Special Use Permit by the Board, per Section 6.1.1 A.3. of the Zoning Ordinance.**

**Part C: A waiver for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.**

**Part D: A waiver for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 K. of the Zoning Ordinance.**

**Part E: A waiver for a separation distance of 115 feet between the solar inverters and the perimeter fence in lieu of the minimum required 275 feet, per Section 6.1.5 D.(6).**

**Other waivers may be necessary.**

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**Case 074-S-22**  
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***PRELIMINARY DRAFT***

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**PRELIMINARY DRAFT****Case 074-S-22**  
**Page 3 of 54****SUMMARY OF EVIDENCE**

From the documents of record and the testimony and exhibits received at the public hearing conducted on **December 29, 2022**, the Zoning Board of Appeals of Champaign County finds that:

1. Medanos Solar LLC, PO Box 14055, Chicago, IL 60614, a subsidiary of Cultivate Power, LLC, owned by Brian Matthay, 2819 Buchanan St, San Francisco, CA 94123 and Noah HYTE, 321 Beloit Ave, Los Angeles, CA 90049; via agent Kiera Gavin, and participating landowner Terry Wolf, 1409 W Bridalveil Pl, Oro Valley, AZ 85737 are the developers of the proposed PV Solar Farm.
2. The subject property is a 48.64-acre tract in the Southeast Quarter of the Southwest Quarter and the Southwest Quarter of the Southeast Quarter and part of a 197.02-acre tract in the east half of Section 4, Township 18 North, Range 14 West of the Second Principal Meridian in South Homer Township, and commonly known as farmland owned by Terry Wolf on the north side of CR 1100N (County Highway 15) northeast of the Village of Homer, Illinois.
3. Regarding municipal extraterritorial jurisdiction and township planning jurisdiction:
  - A. The subject property is located 0 feet from the Village of Homer, a municipality with zoning. Municipalities with zoning are notified of Special Use Permit cases, but do not have protest rights in these cases. The Village of Homer does not have a one and one-half mile extra-territorial jurisdiction because it does not have a Comprehensive Plan.
  - B. The subject property is located within South Homer 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 48.64-acre subject property is zoned AG-2 Agriculture and is currently in agricultural production. The 197.02-acre subject property is split-zoned AG-1 and AG-2 Agriculture and is in agricultural production.
    - (1) The proposed PV SOLAR FARM would be located on approximately 46.4 acres of the two subject properties.
  - B. Land north of the subject property is zoned AG-1 Agriculture and is land in agricultural production.
  - C. Land south of the subject property is zoned AG-2 Agriculture and is agricultural production with several residences. Part of the area to the south is within the Village of Homer.
  - D. Land west of the subject property is partly within the Village of Homer and partly zoned AG-1 and AG-2 Agriculture and land is in agricultural production.
  - E. Land east of the subject property is in Vermilion County, which does not have zoning. Land is in agricultural production.

**PRELIMINARY DRAFT**

**GENERALLY REGARDING THE PROPOSED SPECIAL USE**

5. Regarding the Site plan for the proposed Special Use received September 19, 2022:
- A. The Site Plan by Kimley Horn includes the following proposed features:
- (1) One 5-megawatt community PV SOLAR FARM site on approximately 53.7 acres; and
  - (2) 7-foot tall perimeter fence; and
  - (3) Two equipment pads located approximately 1,225 feet north of the CR 1100N (County Highway 15) centerline; and
  - (4) A 20-foot wide gravel access road extending approximately 1,400 feet north from CR 1100N (County Highway 15); and
  - (5) A gated security entrance approximately 980 feet north of CR 1100N (County Highway 15); and
  - (6) The Point of Interconnection (POI) is proposed to connect to an existing power line that runs along the south side of CR 1100N (County Highway 15); and
  - (7) The nearest parcel 10 acres or less in area not owned by Terry Wolf is 240 feet from the solar farm fenced area; and
  - (8) The nearest parcel greater than 10 acres in area is 26 feet from the solar farm fenced area, and the nearest principal building on that property is approximately 1,700 feet from the fenced area; and
  - (9) The nearest residence is approximately 640 from the solar farm fenced area; and
  - (10) There is a separation of 385 feet between the PV SOLAR FARM perimeter fence and the street centerline of CR 1100N (County Highway 15).
- B. A revised Site Plan received November 21, 2022 indicates the following changes:
- (1) The fenced area of the PV Solar Farm has been moved north in order to avoid a drainage tile and to create more separation from the Homer Village Hall property.
  - (2) The area within the fence has been reduced from 53.7 acres to 46.4 acres.
  - (3) The access gate has been moved farther north.
  - (4) The separation between the PV SOLAR FARM perimeter fence and the proposed location for the inverters has decreased to 115 feet from the south fence. Waiver Part E has been added due to this change.
  - (5) The separation between the PV SOLAR FARM perimeter fence and the street centerline of CR 1100N (County Highway 15) has increased from 385 feet to 765 feet.

**PRELIMINARY DRAFT****Case 074-S-22**  
**Page 5 of 54**

- (6) There is a drainage tile shown on the site plan located within a 40 feet wide drain tile corridor with a 30 feet wide assumed drain tile setback on either side of the drain tile corridor.
  - a. No construction is planned above the tile or within either the drain tile corridor or the assumed drain tile setback.
- C. There are no previous Zoning Use Permits for the subject property.
  - (1) Zoning Case 922-S-18 was approved on January 31, 2019 for a PV Solar Farm Special Use Permit on land adjacent to the subject property on the south side of CR 1100N (County Highway 15). No Zoning Use Permit application was filed for construction of the PV Solar Farm.
- D. There are no previous Zoning Cases for the subject property.

**GENERALLY REGARDING SPECIFIC ORDINANCE REQUIREMENTS**

- 6. Regarding authorization for a “COMMUNITY PV SOLAR FARM” in the AG-1 and AG-2 Agriculture Zoning Districts 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.

**PRELIMINARY DRAFT**

- (5) “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.
- (6) “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.
- (7) “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 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.
- (8) “LOT LINES” are the lines bounding a LOT.
- (9) “PRIVATE ACCESSWAY” is a service way providing ACCESS to one or more LOTS which has not been dedicated to the public.
- (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

**PRELIMINARY DRAFT****Case 074-S-22**  
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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 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.
  - (16) “RIGHT-OF-WAY” is the entire dedicated tract or strip of land that is to be used by the public for circulation and service.
  - (17) “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.
  - (18) “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.
  - (19) “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.
  - (20) “SPECIAL CONDITION” is a condition for the establishment of a SPECIAL USE.
  - (21) “SPECIAL USE” is a USE which may be permitted in a DISTRICT pursuant to, and in compliance with, procedures specified herein.
  - (22) “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.
- 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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- (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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- A. The Petitioner has testified on the application, **“The proposed special use is necessary for Illinois to reach the statutory targets of 50% renewable energy by 2040 (Public Act 102-0662) and will bring clean energy to Champaign County, an opportunity for local subscribers to save on their electricity bill, and increase local property taxes. The existing Ameren infrastructure, level topography, and limited neighbors make this an ideal location for a solar farm.”**
- 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.
- D. There is an existing power line along the south side of CR 1100N (County Highway 15).

***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:
  - A. The Petitioner has testified on the application, **“The proposed project will not be injurious to the District, the surrounding area, or the public welfare. Solar is a proven and safe technology and a low-impact development. See Exhibit B – Solar Overview for more information on project safety. The project’s development will improve environmental health and economic development of the surrounding area.”**
  - B. Regarding surface drainage, the Champaign County Soil and Water Conservation District Natural Resource Report received November 22, 2022, provides a map showing that the PV Solar Farm fenced area generally drains toward the northeast.
  - C. Regarding traffic in the subject property area:
    - (1) The proposed solar farm would have one access on CR 1100N (County Highway 15).
    - (2) CR 1100N (County Highway 15) is a marked rural two-lane County Highway that is approximately 22 feet wide. It is comprised of oil and chip and has 4 feet wide gravel shoulders.
    - (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. CR 1100N (County Highway 15) had an ADT of 1,350 near the subject property.
    - (4) No significant increase in traffic is expected except during construction of the PV SOLAR FARM.

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- (5) The South Homer Township Highway Commissioner has been notified of this case and no comments have been received.
  - (6) Champaign County Highway Department has been notified of this case and has agreed to waive the requirement for a Roadway Upgrade and Maintenance Agreement.
  - (7) The petitioner has also requested a Roadway Upgrade and Maintenance Agreement or waiver therefrom from the Village of Homer.
- D. Regarding fire protection:
- (1) The subject properties are approximately 0.5 mile from the Village of Homer fire station.
  - (2) In an email received November 21, 2022, Fire Chief Don Happ acknowledged receipt of the site plan for the proposed PV Solar Farm.
  - (3) The Homer 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 properties are considered Best Prime Farmland. The Natural Resource Information Report received November 22, 2022, states that the soil on the subject properties consists of 152A Drummer silty clay loam, 171B Catlin silt loam, 154A Flanagan silt loam, and 56B Dana silt loam, and 663B Clare silt loam, and has an average Land Evaluation Factor of 99.
- G. Regarding outdoor lighting on the subject property, the application received September 21, 2022, states that there will no outdoor lighting. 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

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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, **“Yes, the proposed use conforms to the regulations and standards of the AG-1 and AG-2 Districts. The project will not impact the essential character of the Districts because it is a low-profile installation – maximum panel height of 12 feet – and blends in well to the rural landscape. The project will not produce any emissions and will not inhibit neighboring properties’ ability to farm or enjoy their property. After the prospective 40-year life of the project, it will be fully removed through the decommissioning and reclamation process and can be returned to agricultural use.”**
- 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 November 21, 2022 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).
    - 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 located within one-half mile of the Village of Homer.
        - ii. In an email received December 12, 2022, the Mayor of Homer stated, “The Village of Homer Board of Trustees voted on November 14th, 2022, to not oppose the proposed solar farm that is being developed by Cultivate Power Medanos Solar LLC. This vote was based on the latest proposed site plan dated November 1, 2022. This includes a 480' set back from the Homer Village Hall property located at 500 E Second St pin #26-30-04-124-004. Also includes a 40' drain tile corridor with a 30' drain tile set back over the

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24" Village storm drain tile. It was also stated that there would be no damage done to the tile from the construction or future maintenance of the access road or buried electrical service lines.”

- (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 Village of Homer acknowledged receipt of the complete Special Use Permit application.
  - (c) 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.
    - i. No resolution from the Village of Homer has been received as of December 14, 2022.
    - ii. Notice of the December 29, 2022, ZBA public hearing was sent by P&Z Staff to the Village of Homer on December 14, 2022.
- (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 September 19, 2022.
  - b. Documentation must be provided that the utility has accepted the application for the PV SOLAR ARRAY 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.

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- (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 November 21, 2022 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 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 revised Site Plan received November 21, 2022 demonstrates compliance with the 55 feet setback from CR 1100N (County Highway 15), which is a COLLECTOR STREET.
    - (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 are several lots that are 10 acres or less in lot area adjacent to the subject properties. Two of the lots that are 10 acres or less are owned by petitioner Terry Wolf, and for those lots the separation is less than 240 feet with permission of Mr. Wolf. The remaining lots of 10 acres or less meet the required 240 feet separation.

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- ii. For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on more than two sides by the PV SOLAR FARM, the separation shall exceed 240 feet as deemed necessary by the BOARD.
  - (i) There is one lot of 10 acres or less that is not owned by the petitioner and is bordered on two sides by the PV SOLAR FARM. The proposed separation in 240 feet.
  
- (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. There is a 226-acre lot on the west side of the proposed PV SOLAR FARM but it does not contain a PRINCIPAL BUILDING.
  - ii. The PV SOLAR FARM perimeter fencing is at least 10 feet from all SIDE and REAR LOT LINES.
  
- (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.
  - i. There is no AIRPORT or RESTRICTED LANDING AREA within 500 feet of the subject properties.
  
- (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.

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- (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 revised Site Plan received November 21, 2022, are approximately 115 feet away from the PV SOLAR FARM perimeter fence. Waiver Part E has been added due to this change.
  - ii. Regarding the distance between the inverters and nearby lots with dwellings, based on the revised Site Plan received November 21, 2022:
    - (i) There is a 1.38-acre lot with a residence to the southeast of the inverters. The closest distance between the property line and an inverter is approximately 828 feet.
- (i) 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.
- (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 November 21, 2022, shows that there is a 26 feet separation between the subject property lines and the nearest array.
- (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 September 19, 2022, 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

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- amended and shall comply with Federal Communications Commission (FCC) requirements.
- i. No information was required or submitted for the Special Use Permit application.
- (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. No information was required or submitted for the Special Use Permit 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 35 feet tall 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 that appropriate warning signs will be posted at the base of all pad-mounted transformers and substation.
  - 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) The Village of Homer has a 40-foot drainage corridor and a 30-foot drain tile setback on the subject property; the petitioner has agreed that no solar equipment will be constructed within this easement and that is demonstrated on the revised Site Plan received November 21, 2022.
    - (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.
- (10) Paragraph 6.1.5 F. contains standard conditions to mitigate damage to farmland.
    - a. The soil within the approximate PV SOLAR FARM fenced area is Best Prime Farmland and consists of 152A Drummer silty clay loam, 154A

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Flanagan silt loam, 663B Clare silt loam, 56B Dana silt loam 2, and 171B Catlin silt loam, and has an average Land Evaluation score of 99.

- 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 Vegetation Plan received November 21, 2022, “Native plant communities contribute minerals, enzymes and bacteria needed to restore health to soil that has been damaged by decades of artificial fertilizers and tilling. Additionally, native plants offer a secondary purpose of providing forage and nesting spaces for native bees, insects butterflies, bats, song and game birds and small mammals.”
- 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 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 September 19, 2022 states that all underground wiring or cabling will be at a minimum depth of 5 feet below grade.
- e. Subparagraph 6.1.5 F.(2) establishes requirements for protection of agricultural drainage tile.
  - (a) The petitioner stated on the application, “The project recognizes the importance of drain tile to the continued agricultural prosperity in the county and will abide by all drain requirements noted in this section. This includes consultation with the Soil and Water Conservation District and compliance with the Champaign County Storm Water Management and Erosion Control Ordinance when appropriate.”
- f. Subparagraph 6.1.5 F.(3) requires restoration for any damage to soil conservation practices.
  - (a) The petitioner stated on the application, “The project will restore any impacted soil conservation practices such as terraces, grassed waterways if impacted by construction or decommissioning.”
- g. Subparagraph 6.1.5 F.(4) establishes requirements for topsoil replacement pursuant to any open trenching.
  - (a) The petitioner stated on the application, “The project will comply with topsoil replacement requirements.”

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- h. Subparagraph 6.1.5 F.(5) establishes requirements for mitigation of soil compaction and rutting.
    - (a) The petitioner stated on the application, “The project will comply with the compaction and rutting mitigation requirements of this section.”
  - i. Subparagraph 6.1.5 F.(6) establishes requirements for land leveling.
    - (a) The petitioner stated on the application, “The project will comply with the land leveling requirements of this section.”
  - j. Subparagraph 6.1.5 F.(7) establishes requirements for a permanent Erosion and Sedimentation Control Plan.
    - (a) The petitioner stated on the application, “Prior to construction, the project will submit an erosion and sediment control plan prepared by an Illinois PE.”
  - k. Subparagraph 6.1.5 F.(8) establishes requirements for retention of all topsoil.
    - (a) The petitioner stated on the application, “No topsoil shall be removed, stripped, or sold from the property.”
  - l. 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) The petitioner stated on the application, “The project area is located on best prime farmland and will utilized the steps outlined in this section to offset and minimize any disturbance. See attached Exhibit for the Landscape Plan and Weed Control Plan.”
- (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 Champaign County Highway Department provided an email received November 29, 2022 that indicated they waived the Roadway Upgrade and Maintenance agreement requirement.
    - (b) The petitioner is in discussion with the Village of Homer regarding this requirement, which is the reason for inclusion of Waiver Part C.
  - 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

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acceptable to the Applicant and the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality.

- (a) The Champaign County Highway Department provided an email received November 29, 2022 that indicated they waived the Transportation Impact Analysis requirement.
  - (b) The petitioner is in discussion with the Village of Homer regarding this requirement, which is the reason for inclusion of Waiver Part C.
  - 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.
    - (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 located approximately 0.5 road miles from the Homer Fire Station. The Fire Chief has been notified of this case and no comments have been received.
  - b. The petitioner stated in their application, "The project will submit a site plan to the Homer FPD and coordinate with the development of an emergency response plan if the FPD requests a plan. Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations."
- (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, "The project noise levels will be in compliance with the Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910). The project requests an exemption from the requirements of this section because, although the project is 5MW, Public Act 102-0662 increased the defined size of a community solar farm from 2MW to 5MW, and therefore the project should be considered a COMMUNITY PV SOLAR FARM and be exempt from the Ordinance's requirements under 6.1.5 I.(3)a. Additionally, the project's main source of noise, the two inverters, will meet the setback requirements of section 6.1.5 D.(6). The attached inverter specification sheet (Exhibit I) identifies that the inverter noise emission is only 67 decibels measured at 10 meters distance."

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- 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.
    - i. The ZBA should carefully consider whether a noise analysis is required due to the proximity to the Village of Homer.
  
- (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, “The project completed an EcoCAT consultation with the IDNR and attached results as Exhibit G. The IDNR found that adverse effects to endangered species are unlikely from the project.”
  
- (15) Paragraph 6.1.5 K. contains standard conditions for historic and archaeological resources review. Regarding compliance with 6.1.5 K.:
  - a. The petitioner stated in their application, “The project proposes to consult with the State Historic Preservation Officer prior to commencing construction and will supply the Agency Action Report or other comparable findings from the SHPO. The project is unable to provide this report at this time due to constraints in the development timeline.”
  
- (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 stated in their application, “The project will be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality.”
  
- (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 project will be fully enclosed by a 7’ fence with a gated entrance that allows for emergency personnel access. Vegetation between the fencing and the LOT LINE shall be maintained such that NOXIOUS WEEDS are controlled or eradicated consistent with the Illinois Noxious Weed Law.”
  
  - 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

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located within 1,000 feet of an existing DWELLING or residential DISTRICT.

- i. The petitioner stated in their application, “The project proposes not to install any visual screening because the nearest dwellings, south of the project, are screened by robust existing tree lines and the next nearest dwellings, west of the project, are 1000 feet from the project or more. Because of this, we believe the solar farm will be sufficiently screened by virtue of existing topography.”
  
- (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 was designed to minimize glare to adjacent properties by utilizing an anti-reflective coating on panels.”
  
- (19) Paragraph 6.1.5 O. contains standard conditions for the minimum liability insurance for the PV SOLAR FARM.
  - a. The petitioner stated in the application, “The project will meet the liability insurance requirements outlined in this section.”
  
- (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 stated on the application, “The project will comply with maintenance reporting standards and materials handling standards in this section. The panel cleaning methods have not yet been determined by the project but will use industry-standard methods proven safe and effective, for example see Exhibit J.”
  
  - 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 Weed Law (505 ILCS 100/1 et seq.). The weed control plan shall be explained in the application.
    - (a) The petitioner submitted a Vegetation Plan including a weed control plan received November 21, 2022.

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- 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 stated in their application, “The project requests a waiver from the submission of a completed Decommissioning and Site Reclamation Plan at this time but submits the attached Exhibit E in assurance of our commitment to proper decommissioning of the project. The project agrees to submit a completed Decommissioning and Site Reclamation Plan prior to authorization of a Zoning Use Permit.”
- (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.
- i. A special condition has been added that the petitioners will provide a Decommissioning and Site Reclamation Plan to be approved by ELUC prior to applying for a Zoning Use Permit.
- (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 has requested a waiver to provide detailed cost estimates at a later date.

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- ii. Waiver Part B and a special condition were added to ensure compliance.
- (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. Waiver Part B allowing approval at a later date and a special condition were added to ensure compliance.
  - (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 these 12 circumstances comprise when the Zoning Administrator may draw upon the letter of credit.
    - i. No specifics were required or submitted for the Special Use Permit application regarding this requirement.
  - (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) Waiver Part B and a special condition allowing approval at a later date were added to ensure compliance.

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- c. Subparagraph 6.1.5 Q.(3) of the Ordinance requires the Decommissioning and Site Reclamation Plan to include additional information.
    - (a) Waiver Part B and a special condition allowing approval at a later date were added to ensure compliance.
  - 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) 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.
  - 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) 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.
  - 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, “The project will enter into an AIMA with the Illinois DOA and will meet the requirements outlined in this section.”
  - 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

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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 September 19, 2022.
  - 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 September 19, 2022, 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 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 November 21, 2022, 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 November 21, 2022 appears to conform to this requirement.

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- (c) The location of all below-ground wiring.
  - i. The revised Site Plan received November 21, 2022 appears to conform to this requirement.
- (d) The location, height, and appearance of all above-ground wiring and wiring structures.
  - i. The revised Site Plan received November 21, 2022 appears to conform to 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 November 21, 2022 appears to conform to 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 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 Village of Homer has acknowledged receipt of the Special Use Permit application.
- 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-one-half 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-and-one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM

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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) No resolution from the Village of Homer has been received as of December 14, 2022.
  - (b) Notice of the December 29, 2022, ZBA public hearing was sent by P&Z Staff to the Village of Homer on December 14, 2022.
- 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 September 19, 2022.
  - (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) The P&Z Department received a revised Site Plan and supplemental materials on November 21, 2022.
- 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*:
- (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 properties are located in Champaign County's subdivision jurisdiction and appear to be in compliance.
- F. Regarding the requirement that the Special Use preserve the essential character of the AG-1 and AG-2 Agriculture Zoning Districts:

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- (1) The proposed use is a PV SOLAR FARM that is consistent with the essential character of the AG-1 and AG-2 Agriculture Districts 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.
- C. Regarding whether the proposed Special Use Permit is in harmony with the general intent of the Zoning Ordinance:
- (1) Subsection 5.1.1 of the Ordinance states the general intent of the AG-1 District and states as follows (capitalized words are defined in the Ordinance):
- The AG-1, Agriculture DISTRICT is intended to protect the areas of the COUNTY where soil and topographic conditions are best adapted to the pursuit of AGRICULTURAL USES and to prevent the admixture of urban and rural USES which would contribute to the premature termination of AGRICULTURE pursuits.
- (2) 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.

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- (3) The types of uses authorized in the AG-1 and AG-2 Districts are in fact the types of uses that have been determined to be acceptable in the AG-1 and AG-2 Districts. 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.
- (4) 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.

- (5) 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.
- (6) Paragraph 2.0(c) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding congestion in the public STREETS.

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

- (7) 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

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detention basin will be required if more than 16% of the subject property is impervious area, including gravel, buildings, and solar array rack posts.

- (8) 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.
- (9) 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.

- (10) 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.

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.

- (11) 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.

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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.

- (12) 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-1 and AG-2 Agriculture Districts and is, by definition, a rural use.

- (13) 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 numerous protected resources that might be in the vicinity of the proposed PV Solar Farm. IDNR evaluated the information and “concluded that adverse effects are unlikely.” No further action is required by IDNR regarding natural resources.

- (14) 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-1 and AG-2 Agriculture Districts and is, by definition, a rural use.

- (15) 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-1 and AG-2 Agriculture Districts and is, by definition, a rural use.

- (16) 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.

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.

**PRELIMINARY DRAFT****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 distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 feet), per Section 6.1.5 B.(2)a. of the Zoning Ordinance:
    - (1) In an email received November 21, 2022, Village of Homer Clerk Sharon Jeffers acknowledged receipt of a copy of the Special Use Permit application.
    - (2) On December 12, 2022, the Village of Homer Mayor submitted an email in support of the proposed project on behalf of the Village of Homer Board of Trustees.
    - (3) The P&Z Department sent the Village of Homer Clerk notice of the ZBA hearing for this case on December 14, 2022.
    - (4) Adjacent landowners within 250 feet of the subject property were sent notification of the proposed project on December 14, 2022, and no comments have been received.
  - B. Regarding Part B of the proposed waivers, for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer prior to consideration of the Special Use Permit by the Board:
    - (1) Some details that are required to develop the cost estimates might not be available until the Zoning Use Permit phase, when more specific calculations are made by the applicants.
    - (2) A special condition has been added requiring the applicant to submit a Decommissioning and Site Reclamation Plan approved by ELUC at the time of application for a Zoning Use Permit.
  - C. Regarding Part C of the proposed waivers, for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority prior to consideration of the Special Use Permit by the Board:
    - (1) The Champaign County Highway Department has agreed to waive the requirement for a Roadway Upgrade and Maintenance Agreement.
    - (2) The petitioner is working with the Village of Homer on either a waiver or a Roadway Upgrade and Maintenance Agreement.
    - (3) 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 from the Village of Homer.
  - D. Regarding Part D of the proposed waivers, for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources prior to consideration of the Special Use Permit by the Board:

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- (1) The State Historic Preservation Office is experiencing a backlog.
  - (2) A special condition has been added requiring the applicant to submit a State Historic Preservation review at the time of application for a Zoning Use Permit.
- E. Regarding Part E of the proposed waivers, for inverters that are 115 feet from the PV SOLAR FARM fence in lieu of 275 feet:
- (1) The petitioners originally had the inverters 275 feet from the south fence, but the Village of Homer requested that the south fence line be moved farther north, which triggered the need for this waiver.
  - (2) The petitioners considered moving the inverters farther north to meet this requirement, but determined that they have been moved as far north as the project allows.

***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, the applicant would have to consider a different configuration for the PV SOLAR FARM only on the eastern 197-acre subject property.
  - B. Without Parts B, C, and D of the proposed waivers, the Special Use Permit process might have to be extended in order to have sufficient time to prepare these documents, and they might lack the accuracy that can only be secured in the construction permitting phase.
  - C. Without Part E of the proposed waiver, the PV SOLAR FARM fence would have to be moved farther south, which is closer than the Village of Homer would like.

***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 a distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 feet):
    - (1) On December 12, 2022, the Village of Homer submitted an email supporting the proposed PV Solar Farm project. The email stated, "The Village of Homer Board of Trustees voted on November 14th, 2022, to not oppose the proposed solar farm that is being developed by Cultivate Power Medanos Solar LLC. This vote was based on the latest proposed site plan dated November 1, 2022. This includes a 480' set back from the Homer Village Hall property located at 500 E Second St pin #26-30-04-124-004. Also includes a 40' drain tile corridor with a 30' drain tile set back over the 24" Village storm drain tile. It was also stated that there would be no damage done to the tile from the construction or future maintenance of the access road or buried electrical service lines."

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- B. Regarding Part B of the proposed waivers, for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer prior to consideration of the Special Use Permit by the Board:
  - (1) Some of the information required for a DSRP will only be available closer to construction time.
- C. Regarding Part C of the proposed waivers, for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority prior to consideration of the Special Use Permit by the Board:
  - (1) The petitioner is working with the Village of Homer to receive either an agreement or a waiver from the Village.
- D. Regarding Part D of the proposed waivers, for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources prior to consideration of the Special Use Permit by the Board:
  - (1) The State Historic Preservation Office is experiencing a backlog.
- E. Regarding Part E of the proposed waivers, for inverters that are 115 feet from the PV SOLAR FARM fence in lieu of 275 feet: the Village of Homer requested that the south fence line be moved farther north, which is closer to the inverters.

**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 a distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 feet), the requested waiver (variance) is 0% of the minimum required, for a variance of 100%.
  - B. Regarding Part B of the proposed waivers, for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer 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%.
  - C. Regarding Part C of the proposed waivers, for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority 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%.
  - D. Regarding Part D of the proposed waivers, for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources 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%.
  - E. Regarding Part E of the proposed waivers, for inverters that are 115 feet from the PV SOLAR FARM fence in lieu of 275 feet: the requested waiver (variance) is 42% of the minimum required, for a variance of 58%.

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**Page 37 of 54****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. South Homer Township has been notified of this case, and no comments have been received.
  - B. Champaign County Highway Department has been notified of this case, and has submitted a waiver from the requirement for a Roadway Upgrade and Maintenance Agreement.
  - C. The Homer Fire Protection District has been notified of this case, and no comments have been received.
  - D. Drainage District #1 of the Town of South Homer has been notified of this case, and no comments have been received.
  - E. The petitioners have held public meetings with the Village of Homer Board of Trustees, and the petitioners have made adjustments to their site plan based on concerns raised by the Village Board.
  - F. 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:**
    - **Revised Site Plan received November 21, 2022.**

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:

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**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. *(Note: not needed if a waiver is received)* **A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the Village of Homer 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.**

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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. *(Note: not needed if a waiver is received)* **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. **An agency action report from the State Historic Preservation Office regarding historic and archaeological resources review, as required by 6.1.5 K.**
8. **The telephone number for the complaint hotline required by 6.1.5 S.**
9. **Any updates to the approved Site Plan from Case 074-S-22 per the Site Plan requirements provided in Section 6.1.5 U.1.c.**

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.**
  4. **The petitioners will ensure that the part of the PV solar farm that is inside the Village of Homer has proper municipal zoning for that use.**

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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- 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.**

**PRELIMINARY DRAFT****Case 074-S-22**  
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1. Special Use Permit Application received September 19, 2022, with attachments:
  - A Site Plan
  - B Supplemental Application Information, including:
    - Solar Overview
    - Construction Overview
    - Constraints Map
    - O&M Overview, including Landscape and Weed Control Plan
    - Decommissioning Plan
    - IDNR EcoCAT consultation
    - Proof of Interconnection Application
    - Inverter specification sheet
    - Panel cleaning overview
  
2. Email from Kiera Gavin received November 21, 2022, with attachments:
  - A Revised Site Plan
  - B Email from Village of Homer Clerk Sharon Jeffers
  - C Email from Homer Fire Chief Don Happ
  - D Vegetation Management Plan
  
3. Natural Resource Report by the Champaign County Soil and Water Conservation District received November 22, 2022
  
4. Preliminary Memorandum dated December 20, 2022, with attachments:
  - A Case Maps (Location Map, Land Use, and Zoning)
  - B Revised Site Plan received November 21, 2022
  - C Constraints Map received September 19, 2022
  - D Solar Overview received September 19, 2022
  - E Construction Overview received September 19, 2022
  - F O&M Overview received September 19, 2022
  - G Decommissioning Plan received September 19, 2022
  - H IDNR EcoCAT consultation received September 19, 2022
  - I Proof of Interconnection Application received September 19, 2022
  - J Inverter specification sheet received September 19, 2022
  - K Panel cleaning overview received September 19, 2022
  - L Vegetation Management Plan received November 21, 2022
  - M Natural Resource Report by the Champaign County Soil and Water Conservation District received November 22, 2022
  - N Email from Jeff Blue, County Highway Engineer, received November 29, 2022
  - O Email from Jim White, Homer Village Mayor, received December 12, 2022
  - P Site visit images taken September 21, 2022
  - Q Summary of Evidence, Summary Finding of Fact and Final Determination dated December 29, 2022

**PRELIMINARY DRAFT****FINDINGS OF FACT**

From the documents of record and the testimony and exhibits received at the public hearing for zoning case **074-S-22** held on **December 29, 2022**, 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.*
  - c. *There is an existing power line along the south side of CR 1100N (County Highway 15).*
  
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 properties are approximately 0.5 mile from the Village of Homer fire station.*
    - b. *In an email received November 21, 2022, Fire Chief Don Happ acknowledged receipt of the site plan for the proposed PV Solar Farm.*
    - c. *The Homer 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. *In an email received December 12, 2022, the Village of Homer Mayor expressed support for the project being adjacent to the Village of Homer.*
  - 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.*
    - c. *The petitioners, in coordination with the Village of Homer, have established a drain tile corridor and setback for the village tile that crosses the subject property.*
  - 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.*

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- 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.***
- 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.

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## 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 a distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 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 petitioners have held public meetings with the Village of Homer Board of Trustees, and the petitioners have made adjustments to their site plan based on concerns raised by the Village Board.***
  - (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. ***On December 12, 2022, the Village of Homer Mayor submitted an email in support of the proposed project on behalf of the Village of Homer Board of Trustees.***
    - b. ***Adjacent landowners within 250 feet of the subject property were sent notification of the proposed project on December 14, 2022, and no comments have been received.***
  - (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 Part A of the proposed waivers, the applicant would have to consider a different configuration for the PV SOLAR FARM only on the eastern 197-acre subject property.***
  - (4) The special conditions, circumstances, hardships, or practical difficulties **{DO / DO NOT}** result from actions of the applicant because:
    - a. ***The petitioners have held public meetings with the Village of Homer Board of Trustees, and the petitioners have made adjustments to their site plan based on concerns raised by the Village Board.***
  - (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 private access drive that connects County Highway 15 to the PV Solar Farm is within the Village of Homer municipal limits.***
- B. Regarding Part B of the proposed waivers, for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer prior to consideration of the Special Use Permit by the Board:

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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: the petitioner will still need to provide this document prior to receiving 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: cost estimates for the DSRP are unique to each solar project.
  - (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: the Special Use Permit process might have to be extended in order to have sufficient time to prepare these documents, and they might lack the accuracy that can only be secured in the construction permitting phase.
  - (4) The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because: some details such as cost estimates are not available until closer to construction.
  - (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.
- C. Regarding Part C of the proposed waivers, for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority 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 petitioner will still need to provide this documentation prior to receiving 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 the Village of Homer on either a waiver or a Roadway Upgrade and Maintenance Agreement.*
    - b. *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 from the Village of Homer.*
  - (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:

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- a. The Special Use Permit process might have to be extended in order to have sufficient time to prepare these documents, and they might lack the accuracy that can only be secured in the construction permitting phase.*
- (4) The special conditions, circumstances, hardships, or practical difficulties **{DO / DO NOT}** result from actions of the applicant because:
- a. The petitioner is working with the Village of Homer to receive either an agreement or a waiver from the Village.*
- (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.
- D. Regarding Part D of the proposed waivers, for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources 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 special condition has been added that the petitioner must submit this information as part of their Zoning Use Permit application.
- (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: the State Historic Preservation Office is experiencing a backlog.
- (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: without the waiver, the Special Use Permit process would have to be extended until the State Historic Preservation Office overcomes its backlog.
- (4) The special conditions, circumstances, hardships, or practical difficulties **{DO / DO NOT}** result from actions of the applicant because: the State Historic Preservation Office is experiencing a backlog.
- (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.
- E. Regarding Part E of the proposed waivers, for inverters that are 115 feet from the PV SOLAR FARM fence in lieu of the minimum required 275 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: *the requested waiver (variance) is 42% of the minimum required, for a variance of 58%.*

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- (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 petitioners originally had the inverters 275 feet from the south fence, but the Village of Homer requested that the south fence line be moved farther north, which triggered the need for this waiver.*
  - b. *The petitioners considered moving the inverters farther north to meet this requirement, but determined that they have been moved as far north as the project allows.*
- (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: *without Part E of the proposed waiver, the PV SOLAR FARM fence would have to be moved farther south, which is closer than the Village of Homer would like.*
- (4) The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because: *the Village of Homer requested that the south fence line be moved farther north, which is closer to the inverters.*
- (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: *the petitioners considered moving the inverters farther north to meet this requirement, but determined that they have been moved as far north as the project allows.*

7. **{NO SPECIAL CONDITIONS ARE HEREBY IMPOSED / THE SPECIAL CONDITIONS IMPOSED HEREIN ARE REQUIRED TO ENSURE COMPLIANCE WITH THE CRITERIA FOR SPECIAL USE PERMITS AND FOR THE PARTICULAR PURPOSES DESCRIBED BELOW:**

- A. **The approved site plan consists of the following documents:**
- **Revised Site Plan received November 21, 2022.**

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.**

**PRELIMINARY DRAFT**

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. *(Note: not needed if a waiver is received)* **A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the Village of Homer 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.**

**PRELIMINARY DRAFT**

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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. **(Note: not needed if a waiver is received) 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. **An agency action report from the State Historic Preservation Office regarding historic and archaeological resources review, as required by 6.1.5 K.**
8. **The telephone number for the complaint hotline required by 6.1.5 S.**
9. **Any updates to the approved Site Plan from Case 074-S-22 per the Site Plan requirements provided in Section 6.1.5 U.1.c.**

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.**
  4. **The petitioners will ensure that the part of the PV solar farm that is inside the Village of Homer has proper municipal zoning for that use.**

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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- 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.**

**PRELIMINARY DRAFT****Case 074-S-22**  
**Page 51 of 54****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 **074-S-22** is hereby **{GRANTED/ GRANTED WITH SPECIAL CONDITIONS / DENIED}** to the applicant, **Medanos Solar LLC**, to authorize the following as a Special Use on land in the AG-1 and AG-2 Agriculture Zoning Districts:

**Authorize a Community PV Solar Farm with a total nameplate capacity of 5 megawatts (MW), including access roads and wiring, and**

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

- Part A: A waiver for a distance of 0 feet between a PV Solar Farm and a municipal boundary in lieu of the minimum required one-half mile (2,640 feet), per Section 6.1.5 B.(2)a. of the Zoning Ordinance.
- Part B: A waiver for not providing a Decommissioning and Site Reclamation Plan that includes cost estimates prepared by an Illinois Licensed Professional Engineer prior to consideration of the Special Use Permit by the Board, per Section 6.1.1 A.3. of the Zoning Ordinance.
- Part C: A waiver for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 G. of the Zoning Ordinance.
- Part D: A waiver for not completing consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources prior to consideration of the Special Use Permit by the Board, per Section 6.1.5 K. of the Zoning Ordinance.
- Part E: A waiver for a separation distance of 115 feet between the solar inverters and the perimeter fence in lieu of the minimum required 275 feet, per Section 6.1.5 D.(6).

***{ SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS: }***

- A. **The approved site plan consists of the following documents:**
- **Revised Site Plan received November 21, 2022.**
- 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.**

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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.**
- 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.**
- F. *(Note: not needed if a waiver is received)* **A Roadway Upgrade and Maintenance Agreement or waiver therefrom signed by the Village of Homer 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 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. *(Note: not needed if a waiver is received)* **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. **An agency action report from the State Historic Preservation Office regarding historic and archaeological resources review, as required by 6.1.5 K.**

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8. **The telephone number for the complaint hotline required by 6.1.5 S.**
  9. **Any updates to the approved Site Plan from Case 074-S-22 per the Site Plan requirements provided in Section 6.1.5 U.1.c.**
- 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.**
  4. **The petitioners will ensure that the part of the PV solar farm that is inside the Village of Homer has proper municipal zoning for that use.**
- 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.**

**PRELIMINARY DRAFT**

- 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.**

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

SIGNED:

ATTEST:

Ryan Elwell, Chair  
Champaign County Zoning Board of Appeals

Secretary to the Zoning Board of Appeals

Date