

IN THE MATTER OF THE APPLICATION OF)
SOUTH UNION ILLINOIS SOLAR, LLC, APPLICANT)
FOR AN AMENDMENT OF THE UNIFIED DEVELOPMENT) # 2024-022
ORDINANCE OF McHENRY COUNTY, ILLINOIS FOR A)
CONDITIONAL USE)

WHEREAS, your Petitioner, **SOUTH UNION ILLINOIS SOLAR, LLC**, as your Applicant, has filed a petition with the McHenry County Zoning Board of Appeals requesting the issuance of a Conditional Use as it relates to the McHenry County Unified Development Ordinance, as it relates to the real property more fully described as:

THE WEST HALF (W ½) OF THE SOUTHEAST QUARTER (SE ¼) AND THE SOUTHWEST QUARTER (SW ¼) OF THE NORTHEAST QUARTER (NE ¼) OF SECTION SEVEN (S 7), TOWNSHIP FORTY-THREE (43) NORTH, RANGE SEVEN (7) EAST OF THE THIRD PRINCIPAL MERIDIAN (3RD P.M.) IN MCHENRY COUNTY, ILLINOIS.

EXCEPTING

THE WESTERLY 30 FEET AS MEASURED ALONG THE NORTHERLY AND SOUTHERLY LINES OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 7, TOWNSHIP 43 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS.

PIN 18-07-200-010 and 18-07-400-001

WHEREAS, the Petition requests no reclassification of the subject property from its present classification which is **“A-1” Agriculture District**, but a Conditional Use be granted **to allow for a Commercial Solar Energy Facility**.

WHEREAS, the subject property consists of approximately **118.88 acres** in which no reclassification is contemplated.

WHEREAS, a hearing on said petition was held before the Zoning Board of Appeals of McHenry County in the manner and the form as prescribed by the Ordinance and Statute; and

WHEREAS, as a result of said hearing, the taking of evidence, and the viewing of exhibits advanced thereat, the Zoning Board of Appeals of McHenry County **did recommend, by a vote of 6 ayes and 1 nay, the granting of a Conditional Use to allow for a Commercial Solar Energy Facility, with the following conditions:**

1. The Conditional Use shall have no time limit, unless the use is abandoned as specified in 16.56.030.PP.4 of the McHenry County Unified Development Ordinance.
2. Site development shall be in substantial conformance with the site plan prepared by SolarStone and WSB Inc., dated March 20, 2024 and received by the Department of Planning and Development on March 21, 2024 (attached).
3. The Decommissioning Plan shall be applicable in part as well as in whole. If any portion of the commercial solar energy facility ceases to perform its intended function for more than twelve (12) consecutive months, that portion of the facility shall be decommissioned in compliance with all the terms of the Decommissioning Plan.

4. A McHenry County Stormwater Management Permit shall be secured prior to construction. Any damaged drainage tiles shall be repaired at the expense of the Petitioner and in a manner satisfactory to the Water Resources Division Manager.
5. A detailed Landscape Plan illustrating compliance with required landscape screening standards and IDNR Pollinator Scorecard Standards and land management practices shall be approved by the Zoning Enforcement Officer prior to issuance of construction/building permit.
6. Fencing shall be provided in the agricultural style with wooden posts and woven wire mesh in compliance with the National Electrical Code, as applicable. The use of barbed wire is prohibited. Setting fence posts in concrete is prohibited except for gate posts and where otherwise required for stability.
7. Recommendations made by the Illinois Department of Natural Resources in their February 20, 2024 letter to the applicants, with regard to protected resources in the vicinity of the project location, shall be followed.
8. All requirements of McHenry County Unified Development Ordinance §16.56.030.PP (as amended, subject to State of Illinois Public Act 102-1123 and Public Act 103-0580) shall be met or exceeded unless specifically amended by this Conditional Use Permit.
9. All other federal, state, and local laws shall be met.

WHEREAS, the McHenry County Board has considered the recommendation as submitted by the Zoning Board of McHenry County.

WHEREAS, the McHenry County Board has determined that the standards for a Conditional Use Permit as set forth in the McHenry County Unified Development Ordinance and the Illinois Compiled Statutes have been met.

NOW, THEREFORE BE IT ORDAINED, that the Unified Development Ordinance and the Zoning Maps of McHenry County, and such Ordinances and such maps as amended, be and the same are hereby amended to allow the ***issuance of a Conditional Use to allow for a Commercial Solar Energy Facility, with the following conditions:***

1. The Conditional Use shall have no time limit, unless the use is abandoned as specified in 16.56.030.PP.4 of the McHenry County Unified Development Ordinance.
2. Site development shall be in substantial conformance with the site plan prepared by SolarStone and WSB Inc., dated March 20, 2024 and received by the Department of Planning and Development on March 21, 2024 (attached).
3. The Decommissioning Plan shall be applicable in part as well as in whole. If any portion of the commercial solar energy facility ceases to perform its intended function for more than twelve (12) consecutive months, that portion of the facility shall be decommissioned in compliance with all the terms of the Decommissioning Plan.
4. A McHenry County Stormwater Management Permit shall be secured prior to construction. Any damaged drainage tiles shall be repaired at the expense of the Petitioner and in a manner satisfactory to the Water Resources Division Manager.

5. A detailed Landscape Plan illustrating compliance with required landscape screening standards and IDNR Pollinator Scorecard Standards and land management practices shall be approved by the Zoning Enforcement Officer prior to issuance of construction/building permit.

6. Fencing shall be provided in the agricultural style with wooden posts and woven wire mesh in compliance with the National Electrical Code, as applicable. The use of barbed wire is prohibited. Setting fence posts in concrete is prohibited except for gate posts and where otherwise required for stability.

7. Recommendations made by the Illinois Department of Natural Resources in their February 20, 2024 letter to the applicants, with regard to protected resources in the vicinity of the project location, shall be followed.

8. All requirements of McHenry County Unified Development Ordinance §16.56.030.PP (as amended, subject to State of Illinois Public Act 102-1123 and Public Act 103-0580) shall be met or exceeded unless specifically amended by this Conditional Use Permit.

9. All other federal, state, and local laws shall be met.

If any part, sentence, clause, or provision of this ordinance is adjudged to be unconstitutional or invalid, the remainder of this Ordinance shall not be affected thereby.

This Ordinance shall be in full force and effect from and after its passage as by law provided.

DATED this _____ day of _____, 20_____.

Chairperson, McHenry County Board
McHenry County, Illinois

ATTEST:

County Clerk

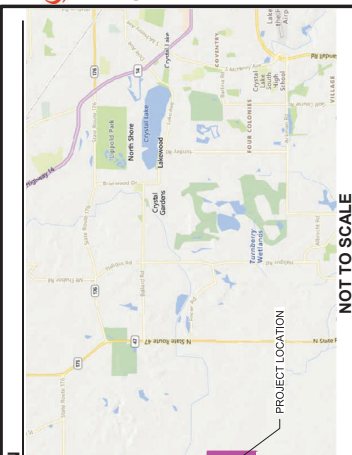
NUMBER VOTING AYE: _____

NUMBER VOTING NAY: _____

NUMBER ABSTAINING: _____

NUMBER ABSENT: _____

ATTACHMENT: OFFICIAL SITE PLAN (2 Pages)



SITE DATA

PROJECT 1	1847-200-210, 1847-400-001
PROPERTY OWNER	DONALD A. ZEDONIS, TR.
SITE ADDRESS	13409 HEMMINGESEN ROAD
PROJECT AREA	UNION, IL
PRELIMINARY SOLAR PANEL AREA	± 4.09 AC
PRELIMINARY DISTURBED AREA	± 23.96 AC
PRELIMINARY AREA SUBJECT TO CHANGE ***	± 26.96 AC
ZONING - EXISTING	MCHENRY COUNTY
ZONING - PROPOSED	A-1, CUP
CURRENT LAND USE	AGRICULTURE
PROPOSED LAND USE	SOLAR ENERGY SYSTEM
PARCEL SETBACK LINES	50 FT
MIN. SIDE YARD	50 FT
MIN. REAR YARD	50 FT
NON-PARTICIPATING RESIDENCE	150 FT

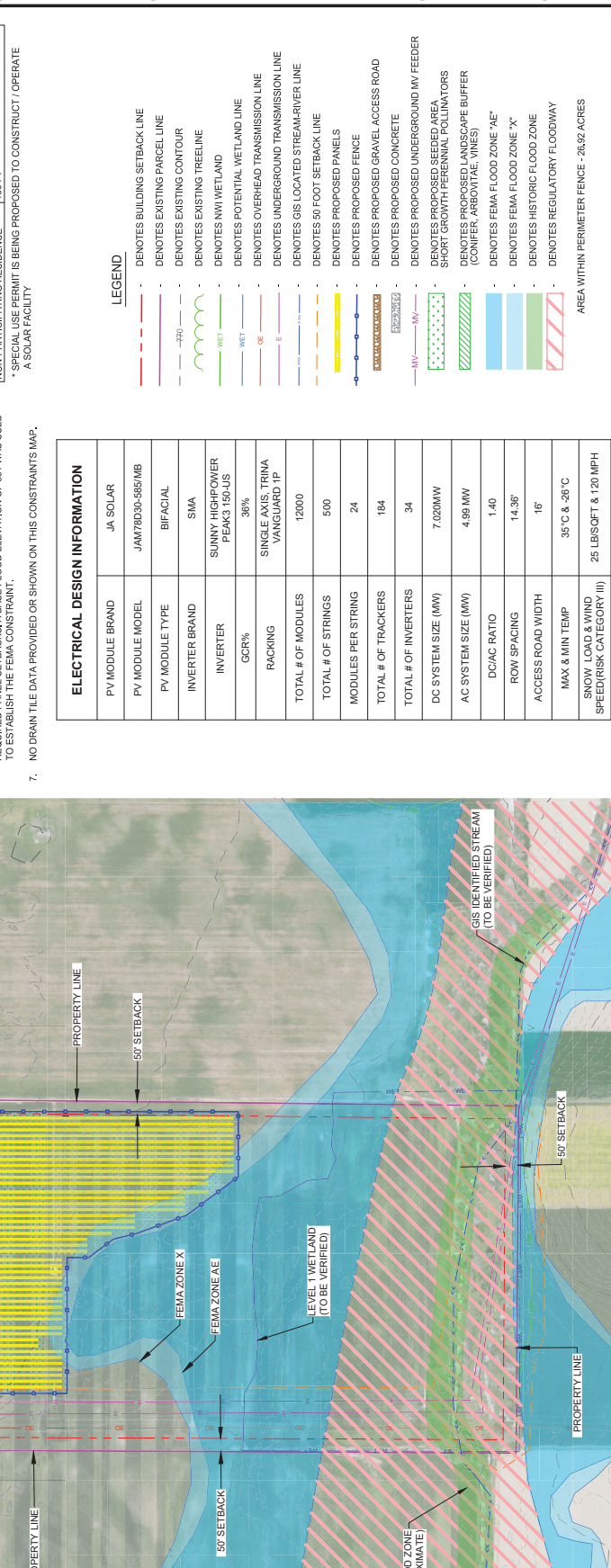
* SPECIAL USE PERMIT IS BEING PROPOSED TO CONSTRUCT / OPERATE A SOLAR FACILITY

- GENERAL NOTES**
- THE PURPOSE OF THIS PLAN IS FOR ZONING APPROVAL FOR REVIEW AND APPROVAL BY MCHENRY COUNTY TO CONSTRUCT A SOLAR ENERGY SYSTEM.
 - THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION NATIONAL WETLANDS INVENTORY AND BING.
 - A PORTION OF THE SUBJECT PROPERTY LIES WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
 - NO PORTION OF THE SUBJECT PROPERTY CONTAINS KARST GEOLOGY ACCORDING TO THE U.S. GEOLOGICAL SURVEY OPEN-FILE REPORT 2004-132.
 - NO PORTION OF THE SUBJECT PROPERTY CONTAINS WELLS ACCORDING TO THE U.S. GEOLOGICAL SURVEY / AND HOMELAND INFRASTRUCTURE FOUNDATION - LEVEL DATA.
 - THE BUILDABLE AREA EXCLUDES ALL CONSTRAINTS OF THE SITE, INCLUDING REQUIRED PANEL SETBACKS, A BASE FLOOD ELEVATION OF 851 WAS USED TO ESTABLISH THE FEMA CONSTRAINT.
 - NO DRAIN TILE DATA PROVIDED OR SHOWN ON THIS CONSTRAINTS MAP.

ELECTRICAL DESIGN INFORMATION

PV MODULE BRAND	JA SOLAR
PV MODULE MODEL	JAM76030-585/MB
PV MODULE TYPE	BIFACIAL
INVERTER BRAND	SMA
INVERTER	SUNNY HIGHPOWER PEAK3 160-US
GCR%	36%
RACKING	SINGLE AXIS, TRINA VANGUARD 1P
TOTAL # OF MODULES	12000
TOTAL # OF STRINGS	500
MODULES PER STRING	24
TOTAL # OF TRACKERS	184
TOTAL # OF INVERTERS	34
DC SYSTEM SIZE (MW)	7.020MW
AC SYSTEM SIZE (MW)	4.99 MW
DC/AC RATIO	1.40
ROW SPACING	14.36'
ACCESS ROAD WIDTH	16'
MAX & MIN TEMP	35°C & -26°C
SNOW LOAD & WIND SPEED (RISK CATEGORY III)	25 LBS/SQFT & 120 MPH

- LEGEND**
- DENOTES BUILDING SETBACK LINE
 - DENOTES EXISTING PARCEL LINE
 - DENOTES EXISTING CONTOUR
 - DENOTES EXISTING TREELINE
 - DENOTES NW1 WETLAND
 - DENOTES POTENTIAL WETLAND LINE
 - DENOTES OVERHEAD TRANSMISSION LINE
 - DENOTES UNDERGROUND TRANSMISSION LINE
 - DENOTES GIS LOCATED STREAM/RIVER LINE
 - DENOTES 50 FOOT SETBACK LINE
 - DENOTES PROPOSED PANELS
 - DENOTES PROPOSED FENCE
 - DENOTES PROPOSED GRAVEL ACCESS ROAD
 - DENOTES PROPOSED CONCRETE
 - DENOTES PROPOSED UNDERGROUND W/ FEEDER
 - DENOTES PROPOSED SEEDED AREA
 - DENOTES PROPOSED PERENNIAL POLLINATORS (CONIFER, ARBORVITAE, VINES)
 - DENOTES FEMA FLOOD ZONE 'AE'
 - DENOTES FEMA FLOOD ZONE 'X'
 - DENOTES HISTORIC FLOOD ZONE
 - DENOTES REGULATORY FLOODWAY
- AREA WITHIN PERIMETER FENCE - 26.92 ACRES



MCHENRY COUNTY
ZONING BOARD OF APPEALS
MINUTES ● May 15, 2024

Zoning Hearing

County Board Conference Room
667 Ware Rd, Woodstock, IL 60098

1:30 PM

ZONING BOARD OF APPEALS REPORT TO THE MCHENRY COUNTY BOARD - #2024-022

- 1. APPLICANT:** South Union Illinois Solar, LLC
- 2. REQUEST:** Conditional Use Permit to allow for a Commercial Solar Energy Facility
- 3. LOCATION AND SIZE OF PROPERTY IN QUESTION:** The property consists of approx. 118.88 acres and is located on the north and south sides of Hemmingsen Road, adjacent to the intersection of Hemmingsen and Mensching Roads, in Grafton Twp, IL with a common address of 13409 Hemmingsen Road, Huntley, Illinois.
- 4. DATE AND TIME OF HEARING AND VOTING MEETING:** May 15, 2024 at 1:30 PM
- 5. LOCATION OF HEARING AND VOTING MEETING:** County Board Conference Room, 667 Ware Road, Woodstock, Illinois
- 6. PRESENT AT HEARING:**
 - A. ZBA Members: Linnea Kooistra – Chair, Vicki Gartner – Vice Chair, Kurt Schnable, Robert Kosin, Thomas Jurs, Mary Donner, William Kurnik
 - B. Witness: Connor Sayles, SolarStone Development
 - C. Attorney: None
 - D. Public: Kim Scharlow – County Staff, Kit GearhartSchinske – County Staff, Brandon Urban, Brandon Cohen, Gordy Simanton, Carol Fruin, Ross Fruin, Ralph Doden, Lonna Roesslein, Brett Roesslein
- 7. ITEMS OF EVIDENCE:** None
- 8. SUMMARY OF TESTIMONY:** Chair Kooistra opened the meeting. The board introduced themselves. Ms. Kooistra swore in the applicants, staff, and the public.

Connor Sayles introduced himself and the application. He stated that the project site would be constructed using union labor during construction. He stated that it used to take seven (7) acres to generate a megawatt. Now it is five (5) acres per megawatt. There will be a transformer on a 10'x10' concrete pad. He stated that no other concrete will be used. He stated they will plant a native prairie grass mix. There will be screening along the north end of Hemmingsen road. The current plan develops the southern parcel. He stated that they chose this site because there is a willing landowner who signed a lease for development on this site. He stated that they also look at capacity. They found that there is capacity at the substation which is near the village of Huntley. Mr. Sayles stated that there will be three (3) power poles on the inside of the fence and three (3) Commonwealth Edison poles outside the fence that will connect to the three (3) phase line right along the road. He stated that the parcel north of Hemmingsen road is primarily a wetland, based on a desktop survey. They will do an onsite survey prior to the permitting process. He stated that they would be conducting a drain tile survey prior to permitting and will design the project posts around the tiles.

Ms. Kooistra asked the applicant if they will comply with decommissioning requirements. Mr. Sayles stated that they will comply with all state decommissioning requirements.

Mr. Kosin asked the applicant to explain the relationship between WSB and SolarStone. Mr. Sayles stated that WSB is the civil engineering group that SolarStone employed in conjunction with himself to prepare the application. Mr. Kosin asked the applicant to expand on the type of union jobs that would be generated by the project. Mr. Sayles stated that they estimate twenty-four (24) full-time construction jobs during the six (6) month construction period. Mr. Kosin asked what the potential tax revenue would be on the project site. Mr. Sayles responded that they estimate between thirty (30) to forty (40) thousand dollars annually.

Ms. Donner asked about the Northern parcel. Mr. Sayles stated that solar development is by nature uncertain when you start with desktop surveys and progress to onsite surveys. He stated that they petitioned the full acreage to maintain options. He stated that they will not be maintaining the full one hundred and twenty (120) acres. It would be more in the twenty-five (25)-acre range.

Ms. Gartner asked if the fencing will be around the full acreage or just the panel site. Mr. Sayles answered that the fencing would only be around the panel area. Ms. Gartner asked about the sound generated. Mr. Sayles stated that the sound is about thirty (30) decibels, and you are unable to hear it from the road.

Ms. Kooistra asked if the Blandings turtle that has been identified in the area will be able to pass through. She stated that the agricultural style fence is preferred. Mr. Sayles stated that they propose a four (4) to six (6) inch gap at the bottom to allow pass-through of wildlife.

Staff asked if there will be an issue with having three (3) separate roads on the property. Mr. Sayles stated that they have not talked to the road district yet, but do not see any issues if there is a concern about multiple roads.

Staff asked if the site plan reflects the proposed screening. Mr. Sayles stated that the east and west side setbacks are being proposed as part of the five hundred (500) foot setback.

Mr. Kosin asked that if there are significant changes to the site plan, would the applicant have to come back through the conditional use process. Staff confirmed that is correct.

Ms. Kooistra opened the floor to public questions. Ross Fruin stated he is the tenant farmer on the property. He asked if there is a statute concerning the percentage of coverage of solar panels on the property. Mr. Sayles stated that there is not. Staff stated that there is a fifty (50) percent impervious maximum on the property, but solar panels are not considered impervious surface. Only the posts, driveway, and concrete pad are considered impervious.

Mr. Roesslein expressed concern about property values being affected by the installation of a commercial solar energy facility. Mr. Simanton stated that there was a 2022 study in Stevenson County that concluded that there was no effect on property values for adjacent properties.

Ms. Fruin expressed concern over mowing twice a year. Mr. Sayles stated that they have a very large incentive to make sure that they are keeping all the vegetation in order, because anything that comes and shades the panels is lost production. He stated that it is very important that the facility is clean, orderly, and that there are not overgrown weeds. He stated that IDNR recommends that they use specific seed mixes because they decrease water runoff and allow for pollinator habitat.

Staff gave their report. The subject property is zoned "A-1" Agriculture District and is surrounded by "A-1" Agriculture. There is the "A-2" Agricultural District residence just to the west of the northern parcel, but sufficient distance from the array, and includes screening between that. The surrounding land use is agriculture. Future land use designation is also agricultural. Staff stated that the applicants submit the landscape plans and that Staff inspects the site annually to ensure compliance with that plan. All standards have been met.

Mr. Kosin asked if any objections have been received from the municipalities. Staff stated that they have not.

Ms. Kooistra opened the floor for public comment. Mr. Roesslein stated that the agricultural style fence would help lessen the devaluation of the property.

Ms. Fruin expressed concern over the applicant utilizing class A agricultural land.

Mr. Sayles gave a closing statement. Ms. Kooistra closed the testimony portion of the hearing.

9. SOIL AND WATER CONSERVATION DISTRICT REPORT:

For further information refer to report number: 24-033-4589.

10. ILLINOIS DEPARTMENT OF NATURAL RESOURCES:

The consultation was received for this application.

11. SUMMARY OF VOTING MEETING DISCUSSION:

Chair Kooistra opened the voting meeting immediately following the hearing and read the conditions into the record.

Ms. Gartner proposed an amendment to specify that any fencing used will be in the agricultural style. Ms. Donner seconded the motion. Ms. Kooistra and Mr. Kosin specified that the fence mesh would be square shape. Mr. Sayles stated that they would be happy to provide that style fence. Motion carried. (7-0).

Ms. Gartner motioned to approve the conditions as amended. Mr. Schnable seconded the motion. Motion carried (7-0).

Ms. Gartner motioned to approve the petition subject to the conditions. Ms. Donner seconded the motion. Ms. Gartner stated that the standards have been met. The state requires that the board is obligated to approve projects that do meet the standards. It is a passive neighbor and it preserves the farm land.

Mr. Jurs stated that this parcel contains agricultural infrastructure in the ground and the award-winning dirt is being removed from agricultural production. He stated that he does not support this petition.

Mr. Kurnik stated that the project will not impact wetlands, or any environmental area. The native vegetation will improve drainage in a sensitive aquifer recharge area. He stated that this land score may be greater than eighty-one (81). However, Public Act 102-1123 does not differentiate between the quality of land that a petitioner proposes to put a commercial solar energy facility on.

Ms. Kooistra stated that it meets the standards. Motion carried (6-1).

12. FACTS THAT SUPPORT RECOMMENDING APPROVAL OF THE REQUEST:

- The subject property is zoned A-1 Agricultural District.
- The surrounding land use is agricultural.
- Future land use designation is agricultural.
- All State and County Standards have been met.

13. FACTS THAT SUPPORT RECOMMENDING DENIAL OF THE REQUEST:

- The subject parcel contains agricultural infrastructure.

14. MOTIONS:

- Ms. Gartner proposed an amendment to specify that any fencing used will be in the agricultural style. Ms. Donner seconded the motion. Motion carried. (7-0).

- Ms. Gartner motioned to approve the conditions as amended. Mr. Schnable seconded the motion. Motion carried (7-0).
- Ms. Gartner motioned to approve the petition subject to the conditions. Ms. Donner seconded the motion. Motion carried (6-1).

15. VOTE:

6 – AYES; 1 – NAYS; 0 – ABSTAIN

Kooistra – Aye

Gartner – Aye

Schnable – Aye

Kosin – Aye

Jurs – Nay

Donner – Aye

Kurnik - Aye

GOES TO COUNTY BOARD WITH ZBA RECOMMENDATION FOR Approval of the conditional use:

1. The Conditional Use shall have no time limit, unless the use is abandoned as specified in 16.56.030.PP.4 of the McHenry County Unified Development Ordinance.
2. Site development shall be in substantial conformance with the site plan prepared by SolarStone and WSB Inc., dated March 20, 2024 and received by the Department of Planning and Development on March 21, 2024 (attached).
3. The Decommissioning Plan shall be applicable in part as well as in whole. If any portion of the commercial solar energy facility ceases to perform its intended function for more than twelve (12) consecutive months, that portion of the facility shall be decommissioned in compliance with all the terms of the Decommissioning Plan.
4. A McHenry County Stormwater Management Permit shall be secured prior to construction. Any damaged drainage tiles shall be repaired at the expense of the Petitioner and in a manner satisfactory to the Water Resources Division Manager.
5. A detailed Landscape Plan illustrating compliance with required landscape screening standards and IDNR Pollinator Scorecard Standards and land management practices shall be approved by the Zoning Enforcement Officer prior to issuance of construction/building permit.

6. Fencing shall be provided in the agricultural style with wooden posts and woven wire mesh in compliance with the National Electrical Code, as applicable. The use of barbed wire is prohibited. Setting fence posts in concrete is prohibited except for gate posts and where otherwise required for stability.
7. Recommendations made by the Illinois Department of Natural Resources in their February 20, 2024 letter to the applicants, with regard to protected resources in the vicinity of the project location, shall be followed.
8. All requirements of McHenry County Unified Development Ordinance §16.56.030.PP (as amended, subject to State of Illinois Public Act 102-1123 and Public Act 103-0580) shall be met or exceeded unless specifically amended by this Conditional Use Permit.
9. All other federal, state, and local laws shall be met.

Full Comments for the above agenda items are included in the audio recording of this meeting, which can be found on the McHenry County Meeting Portal.

Staff Report for the McHenry County Zoning Board of Appeals

Application: #2024-022

PINs: #18-07-200-010 and #18-07-400-001

Address: 13409 Hemmingsen Road, Huntley, Illinois

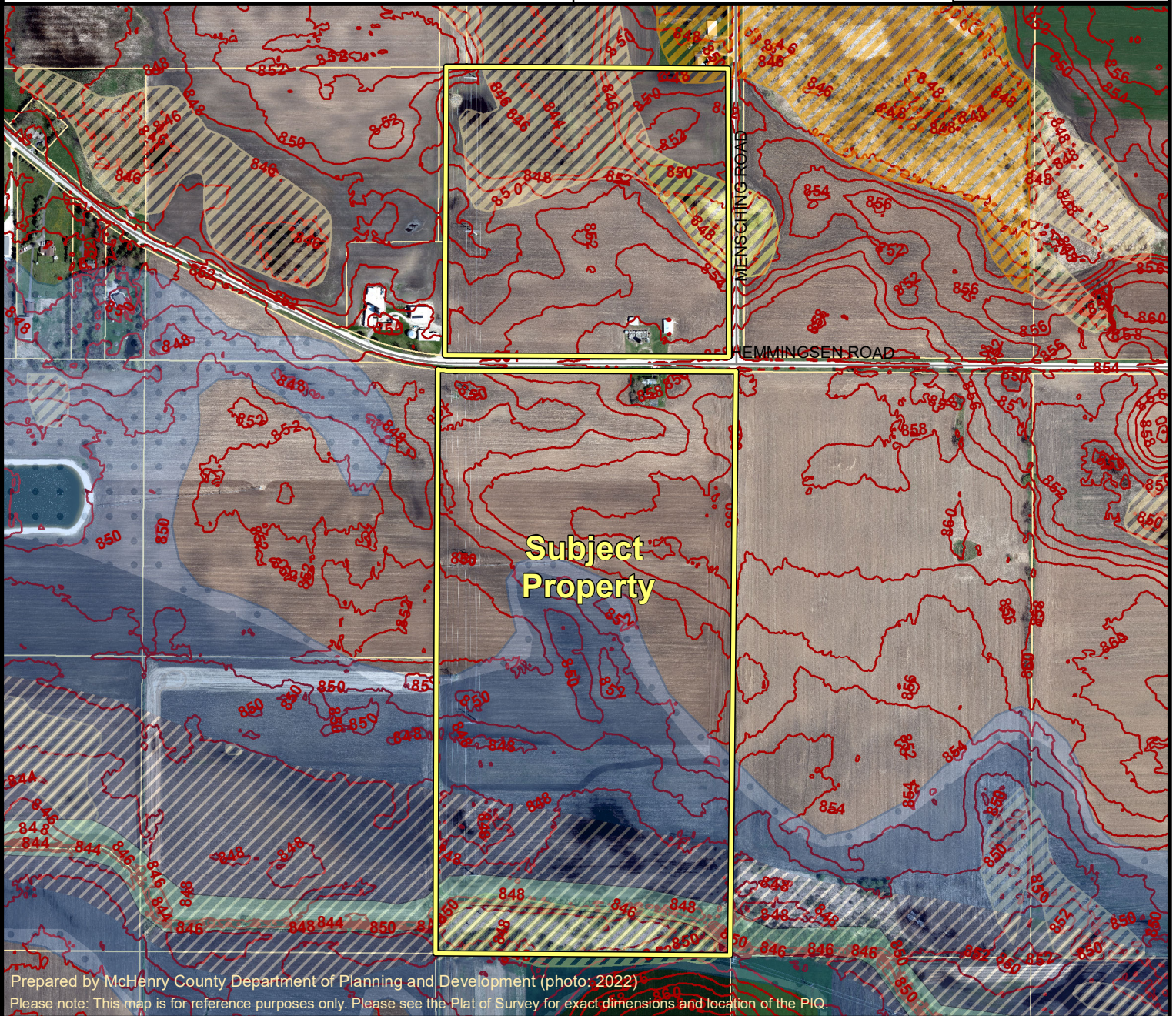
Location: The property consists of approx. 118.88 acres and is located on the north and south sides of Hemmingsen Road, adjacent to the intersection of Hemmingsen and Mensching Roads, in Grafton Twp, IL.

Hearing: May 15, 2024

Applicant: South Union Illinois Solar, LLC

Request: Conditional Use Permit to allow for a Commercial Solar Energy Facility

Aerial Map





Prepared by McHenry County Department of Planning and Development (photo: 2022)

Please note: This map is for reference purposes only. Please see the Plat of Survey for exact dimensions and location of the PIQ.




ADID Wetland Map 2005

Elevation
(feet above sea level)

— Contours

-  High Functional Value Wetland (hfw)
-  High Quality Wetland (hqw)
-  Wetland (w)
-  Farmed Wetland (fw)

FEMA Flood Hazard Areas

-  0.2 % Annual Chance of Flood
-  1% Annual Chance of Flood
-  Floodway

Historic Flood Zone



Feet
330 165 0 330 660
1 inch equals 660 feet



Staff Report for the McHenry County Zoning Board of Appeals

STAFF COMMENTS

The following comments and conclusions are based upon staff analysis and review prior to this hearing and are to be considered viable unless evidence is established to the contrary. Staff may have additional comments based upon the testimony presented during the public hearing.

BACKGROUND & REQUEST SUMMARY

The applicant is requesting a Conditional Use Permit to allow for a Commercial Solar Energy Facility. The subject property consists of approximately 118.88 acres and is zoned A-1 Agriculture District. According to the aerial photography, the subject property is currently in agricultural production and contains several structures.

According to the narrative, the applicant is proposing a five (5)-megawatt commercial solar energy facility, enclosed by an eight (8)-foot security fence, per the regulations of the National Electric Code. The nearest adjacent residence on a nonparticipating parcel is over three hundred fifty (350) feet from the proposed location of the solar array.

Note: On January 27, 2023, the State of Illinois passed Public Act 102-1123 (further modified under trailer bill P.A. 103-0580 on December 8, 2023), which modifies regulations for proposed commercial solar energy facilities. The County of McHenry has amended the Unified Development Ordinance, as of April 18, 2023, in order to comply with the State's regulations.

MCHENRY COUNTY UNIFIED DEVELOPMENT ORDINANCE

- The applicant must meet the Principal Use Standards for a Solar Farm, listed in County Code Section 16.56.030.PP of the UDO (*with the exception of any changes provided by Public Act 102-1123, as outlined above*).

STAFF ANALYSIS

Current Land Use & Zoning

The property is adjacent to Agricultural uses to the north, south, east and west. The surrounding zoning consists of A-1 Agriculture District to the north, south, and east and A-1 Agriculture District and A-2 Agriculture District to the west.

2030 Comprehensive Plan Future Land Use Map

The proposed conditional use permit is consistent with the County's future land use designation of Agricultural.

2030 Comprehensive Plan & 2030 and Beyond Analysis

The 2030 Comprehensive Plan and 2030 and Beyond Update support the construction of commercial solar energy facilities within existing agricultural areas. (*See analysis below*)

McHenry County 2030 and Beyond, Adopted October 18, 2016

Big Idea #1 Let's make our communities healthy, active, and green

"We can make it happen by preserving our groundwater aquifers, lakes, rivers, streams, and their natural functions." (p.11)

- The McHenry County Water Resources Division has determined that the panels will not be calculated as an impervious surface for the development permit. This is because the panels are proposed to be elevated above the ground several feet and supported by driven piles. The petitioner will be required to obtain a Stormwater Management Permit which will include calculations for all impervious areas, including but not limited to the piles, access drives, and equipment pads.

Big Idea #2 Let's build on our strengths

"We can make it happen by recognizing the economic and social importance of our agricultural industry." (p. 15)

- The McHenry County Soil and Water Conservation District's Natural Resources Inventory report (#24-033-4589) indicates that the LE score is 81.79 out of a possible 100 regarding soils for crop production. This is due, in part, to approximately 58.29% of the site containing prime farmland soils. The concerns that the development of solar facilities in the county will result in the loss of farmland, particularly prime farmland can be remediated because, unlike other forms of development, the land is preserved for future farming. Also, the proposed native vegetation may slow the velocity of runoff, capturing sediments or other pollutants and allowing water to infiltrate into the soil, thereby reducing potential for erosion and sedimentation and improving soil conditions.

Big Idea #3 Let's grow smarter

"The county should also be open to commercial enterprises in the unincorporated areas that are major generators of jobs or tax revenues for which no suitable municipal sites exist elsewhere in the county, or that are dependent upon a direct proximity to agriculture or open space and designed in harmony with these areas." (p. 17 & 21)

- Due to the size and scale of the project, undeveloped acreage is important to the siting and development of a commercial solar energy facility. The applicant should be prepared to address how the proposed use relates to the statement above regarding generation of jobs, tax revenues, and siting of the facility.

Big Idea #4 Let's expand our economy

"We can make it happen by improving infrastructure, including freight and commuter rail, access to major regional and interstate roadways, and access to high-speed internet services." (p.22)

- The proposed commercial solar energy facility will provide a renewable energy source to the electrical grid as an alternative to energy created from sources with a larger carbon footprint.

McHenry County 2030 Comprehensive Plan, Adopted April 20, 2010

Community Character & Housing

No applicable text.

Agricultural Resources

"Encourage owners of parcels with the greatest potential for productive agricultural use, such as parcels with an LE score of 80 or above that are in agricultural use and contiguous with other such parcels, to preserve their parcels for agricultural uses." (p. 38, #7)

- Commercial solar energy facilities typically have a life of approximately thirty (30) to forty (40) years and after that time the property may return to agriculture.

"Continue joint participation with the USDA Natural Resources Conservation Service and McHenry County Soil and Water Conservation District in educational programs regarding best soil conservation practices and improving rural water quality." (p. 38, #20)

- The McHenry-Lake County Soil and Water Conservation District recommends that areas between panels be planted to a native prairie mix to help increase water infiltration and reduce runoff from the site. It is recommended that a planting and maintenance plan be developed with the landowner to ensure that noxious weeds are controlled, and native plantings are properly installed and managed. The petitioner is encouraged to add pollinator species to this planting plan. The Soil and Water Conservation District also recommends, upon decommissioning, that if any underground lines are to remain, they should have at least five (5) feet of cover to adequately allow farming operations to commence after the facility's removal.

Greenways, Open Space & Natural Resources

"Protect environmentally sensitive areas from negative impacts of adjacent land uses." (p.57, #9)

- The IDNR indicated protected resources may be in the vicinity of the project location. The Department evaluated the information provided and determined adverse impacts to the Pleasant Valley INAI site, as well as the Brassy Minnow and Yellow-headed Blackbird were unlikely. They offered recommendations for actions to be taken to avoid adversely impacting Blanding's Turtles that may be in the vicinity of the project, including exclusionary fencing. Consultation was terminated.

"Encourage the design of developments to achieve the broader sustainability of human and natural communities, including the social and economic dimensions of sustainability." (p. 57, #15)

- The proposed commercial solar energy facility will contribute to a broader sustainability objective in that it will produce clean energy as a replacement for energy produced by unsustainable means.

Water Resources

"Preserve and enhance the chemical, physical, biological, hydrologic integrity of streams, lakes and wetlands." (p.63)

"...land use and development should be carefully examined and regulated within sensitive groundwater recharge areas to ensure that the water quality, quantity, and natural recharge functions of the area are safely maintained." (p.67)

- The applicant will be required to obtain a Stormwater Management Permit prior to construction.

Economic Development

"Decrease the degree to which the residential sector in the County must pay for services." (p.87)

- The state legislature has approved standards that would regulate how commercial solar energy facilities are assessed for tax purposes. The standards would result in an increase from the current assessed value of agricultural land.

Infrastructure

"It is estimated that every 120 MW of solar power would eliminate 1.7 million tons of carbon dioxide emissions which is the equivalent of removing 310,000 vehicles from the nation's roadways annually. A 1,000 MW coal plant produces approximately 6 million tons of carbon dioxide per year." (p.116)

"Encourage all governmental units in the County to adopt and support ordinances that will enhance all segments of the areas electric grid." (p. 120, #5)

The proposed commercial solar energy facility is consistent with the *Comprehensive Plan* support of more sustainable energy sources.

STAFF ASSESSMENT

The 2030 Comprehensive Plan and the 2030 and Beyond Update both support the development of commercial solar energy facilities. Once the facility is constructed, there is very little to no traffic generated by the use. There is very minimal risk of noise, lighting, or other nuisances generated by this use. The proposed use is compatible with adjacent uses. As noted within Public Act 102-1123, a request for a Conditional Use Permit for a commercial solar energy facility shall be approved if the request is in compliance with the standards and conditions imposed within the Act, the zoning ordinance adopted consistent with this Code, and the conditions imposed under State and Federal statutes and regulations. A County may not adopt zoning regulations that disallow commercial solar energy facilities from being developed or operated in any district zoned to allow agricultural or industrial uses. All construction will be required to meet applicable codes and ordinances for: fire protection, commercial building and electrical construction, and stormwater management.

Staff offers the following conditions for consideration:

1. The Conditional Use shall have no time limit, unless the use is abandoned as specified in 16.56.030.PP.4 of the McHenry County Unified Development Ordinance.
2. Site development shall be in substantial conformance with the site plan prepared by SolarStone and WSB Inc., dated March 20, 2024 and received by the Department of Planning and Development on March 21, 2024 (attached).
3. The *Decommissioning Plan* shall be applicable in part as well as in whole. If any portion of the commercial solar energy facility ceases to perform its intended function for more than twelve (12) consecutive months, that portion of the facility shall be decommissioned in compliance with all the terms of the *Decommissioning Plan*.
4. A McHenry County Stormwater Management Permit shall be secured prior to construction. Any damaged drainage tiles shall be repaired at the expense of the Petitioner and in a manner satisfactory to the Water Resources Division Manager.
5. A detailed Landscape Plan illustrating compliance with required landscape screening standards and IDNR Pollinator Scorecard Standards and land management practices shall be approved by the Zoning Enforcement Officer prior to issuance of construction/building permit.
6. Fencing shall be provided in compliance with the National Electrical Code, as applicable. The use of barbed wire is prohibited. Setting fence posts in concrete is prohibited except for gate posts and where otherwise required for stability.
7. Recommendations made by the Illinois Department of Natural Resources in their February 20, 2024 letter to the applicants, with regard to protected resources in the vicinity of the project location, shall be followed.
8. All requirements of McHenry County Unified Development Ordinance §16.56.030.PP (as amended, subject to State of Illinois Public Act 102-1123 and Public Act 103-0580) shall be met or exceeded unless specifically amended by this Conditional Use Permit.
9. All other federal, state, and local laws shall be met.

16.56.030 Principal Use Standards

PP. COMMERCIAL SOLAR ENERGY FACILITY. Conditional use permits for a COMMERCIAL SOLAR ENERGY FACILITY shall have no time limit, unless the use is abandoned as specified in subsection PP.4. below (COMMERCIAL SOLAR ENERGY FACILITY: Abandonment), or the permit is revoked in accordance with § 16.20.040I. (Revocation of Conditional Use Permits).

1. Application.

- a. A threatened and endangered species consultation (EcoCAT) from the Illinois Department of Natural Resources is required at the time of conditional use permit application for any site that is five (5) acres or greater in size and currently in agricultural use or undeveloped.
- b. A site plan shall be provided showing all improvements, including structures, fencing, power lines (above and below ground), lighting, and landscaping, at a detail sufficient to understand the location, height, appearance, and area.
- c. All other application submittal requirements outlined in the *Planning and Development Department Zoning Application Packet* as published on the McHenry County Website.

2. Site design.

- a. Solar panels, structures, and electrical equipment, excluding fences and power lines for interconnection, shall be erected no less than fifty (50) feet from any lot line and no less than one hundred fifty (150) feet from any residence, other than a residence on the same ownership parcel.
- b. No structures, excluding power lines for interconnection, may exceed twenty (20) feet in height. Power lines shall be placed underground to the maximum extent possible.
- c. Lighting must comply with § 16.60.020 (Exterior Lighting).
- d. Solar panels shall have a surface that minimizes glare and shall comply with § 16.60.040D. (Lighting and Glare).
- e. The facility shall be situated as to minimize impacts to woodlands, savannas, wetlands, drainage tiles, and encroachment into flood plains. All site development shall comply with the Stormwater Management Ordinance. Any damaged drainage tiles shall be repaired.
- f. In order prevent erosion, manage run-off, and provide ecological benefit, the facility shall be planted with “low-profile” native prairie species, using a mix appropriate for the region and soil conditions per Illinois Department of Natural Resources (IDNR) standards, as amended from time to time.
- g. Fencing shall be provided in compliance with the National Electrical Code, as applicable. The use of barbed wire must comply with § 16.56.050H.1.c. of this Ordinance.
- h. Any part of the facility that is within five hundred (500) feet of a NONPARTICIPATING RESIDENCE, or road right-of-way, shall be landscaped with an arrangement of native shrubs, subject to approval by the County Board, unless the facility is screened from view by existing vegetation.
- i. Prior to building permit issuance, the operator shall prepare a landscape monitoring and maintenance plan to ensure the establishment and continued maintenance of the native prairie species, all installed landscape screening, and all existing vegetation that provides required landscape screening.
- j. Prior to scheduled public hearing, the operator shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture (IDOA), as required by that department.
- k. Prior to building permit issuance, the operator shall provide an executed road use agreement between the Applicant and the appropriate governing road and highway jurisdictions or the Illinois Department of Transportation (IDOT), showing approved entrances.

3. Safety.

- a. Prior to construction, the operator shall prepare an emergency management plan acceptable to the County and the local fire district and shall be responsible for training of emergency personnel, as needed.
- b. A sign shall be posted providing the name of the operator and a phone number to be used in case of an on-site emergency.
- c. Access shall be granted, provided appropriate advance notice, for periodic inspection of the site by the County or the local fire district.
- d. Damaged solar panels shall be removed, repaired, or replaced within sixty (60) days of the damage. The ground shall remain free of debris from damaged solar panels at all times.

4. Abandonment.

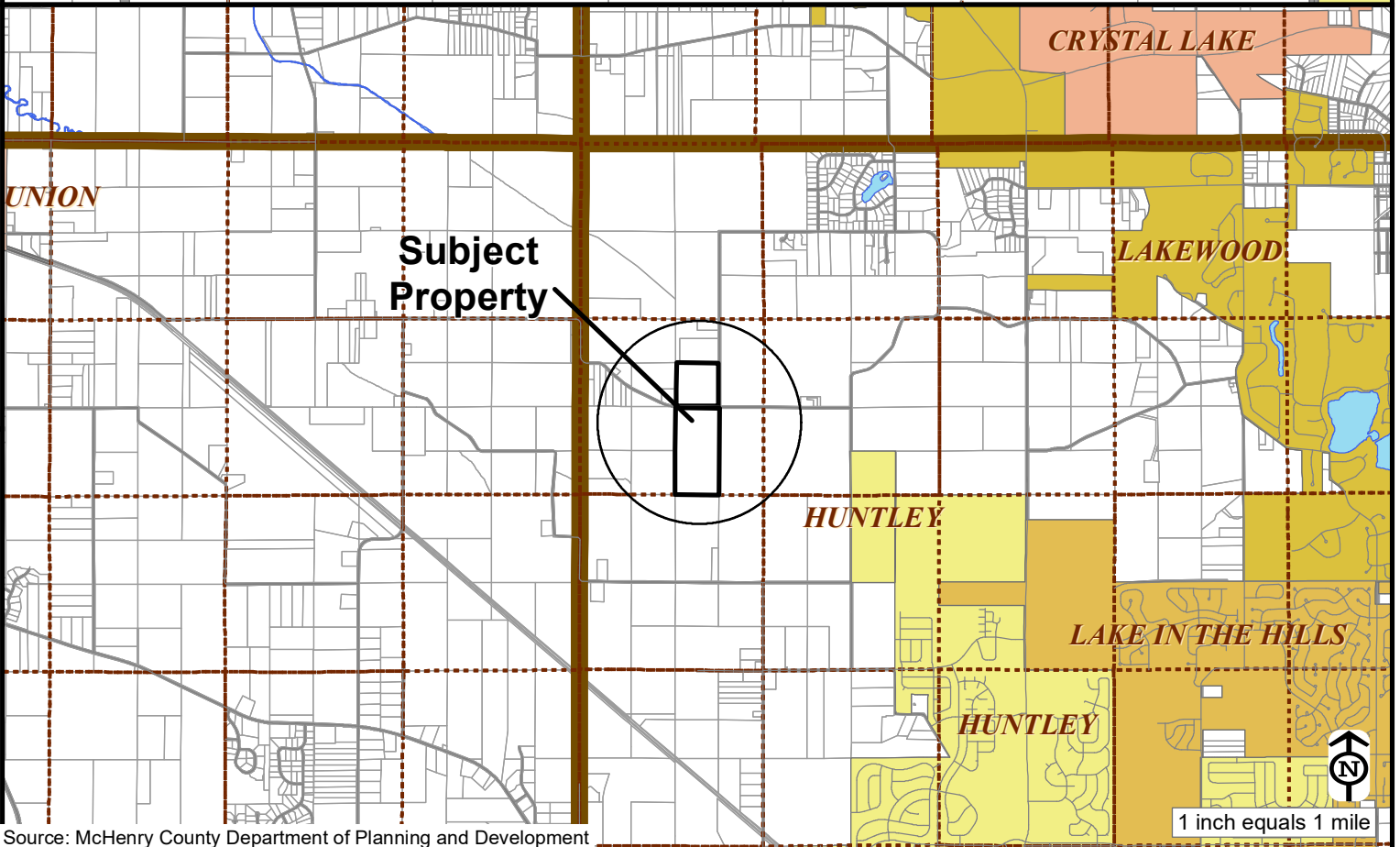
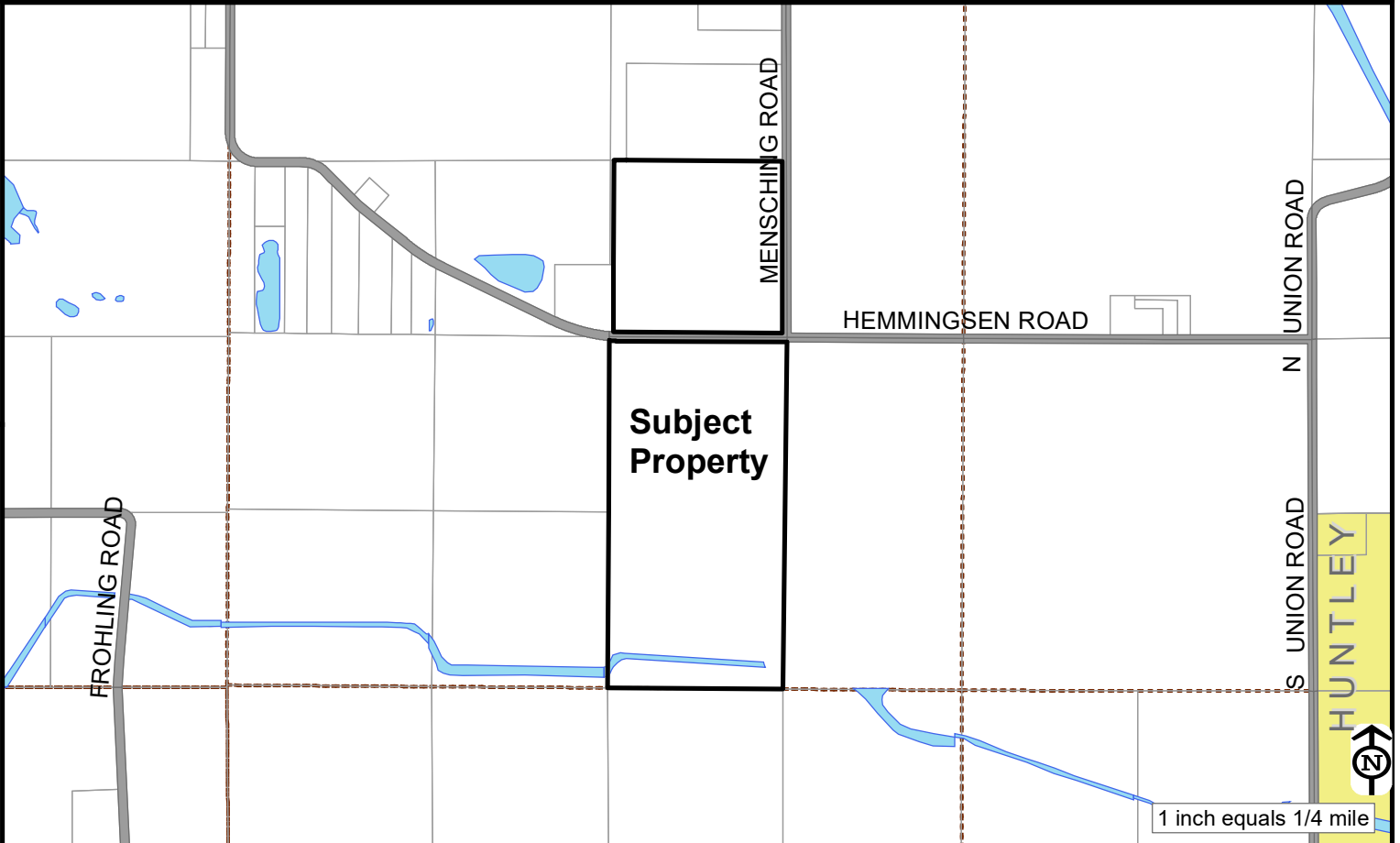
- a. The COMMERCIAL SOLAR ENERGY FACILITY shall be considered abandoned if the operator fails to pay rent as specified in the Agricultural Impact Mitigation Agreement, or it ceases to generate electricity for a period of twelve (12) consecutive months. Reports of electrical power production shall be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

5. Decommissioning. Decommissioning and removal of the COMMERCIAL SOLAR ENERGY FACILITY shall be the responsibility of the operator upon abandonment or revocation of the conditional use permit. All operators shall comply with the following:

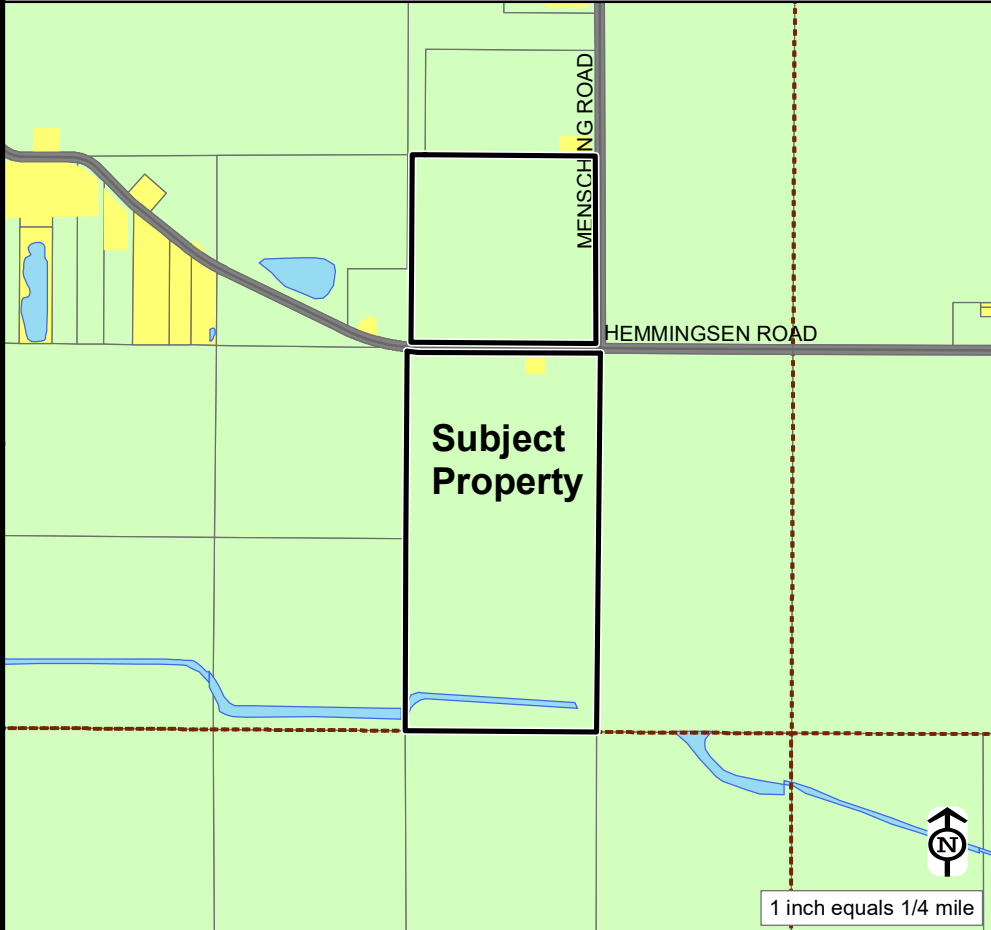
- a. Prior to building permit issuance, the operator shall prepare a decommissioning plan which shows the final site conditions after the COMMERCIAL SOLAR ENERGY FACILITY has been removed from the property. Decommissioning plans shall require removal of all solar panels, electrical equipment, poles, piles, foundations, and conduits (above and below ground). Access roads, fencing, groundcover, and landscaping may remain only by agreement of property owner.
- b. Prior to building permit issuance, the operator shall submit an engineer's estimate of cost for decommissioning the facility and restoring the site in accordance with the approved decommissioning plan. Upon review and approval by the Zoning

Enforcement Officer of the estimate, the operator shall obtain a bond, letter of credit, or other form of surety acceptable to the County to be held by the Department of Planning and Development in the amount of one hundred percent (100%) of the estimate. Provision of this financial assurance shall be phased in over the first eleven (11) years of the project's operation or as otherwise provided in accordance with the executed Agricultural Impact Mitigation Agreement.

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



Current Land Use Map



Current Land Use

Agriculture

Adjacent Land Use(s)

North: *Agriculture*
 South: *Agriculture*
 East: *Agriculture*
 West: *Agriculture*

- Agriculture
- MCCD Agriculture
- Single-Family Residential
- Multi-Family Residential
- Open Space
- Golf Course
- Commercial
- Office
- Industrial
- Mixed Use
- Earth Extraction
- Vacant
- Government / Institutional
- Transportation, Communication, Utilities
- Under Review

Zoning Map



Current Zoning

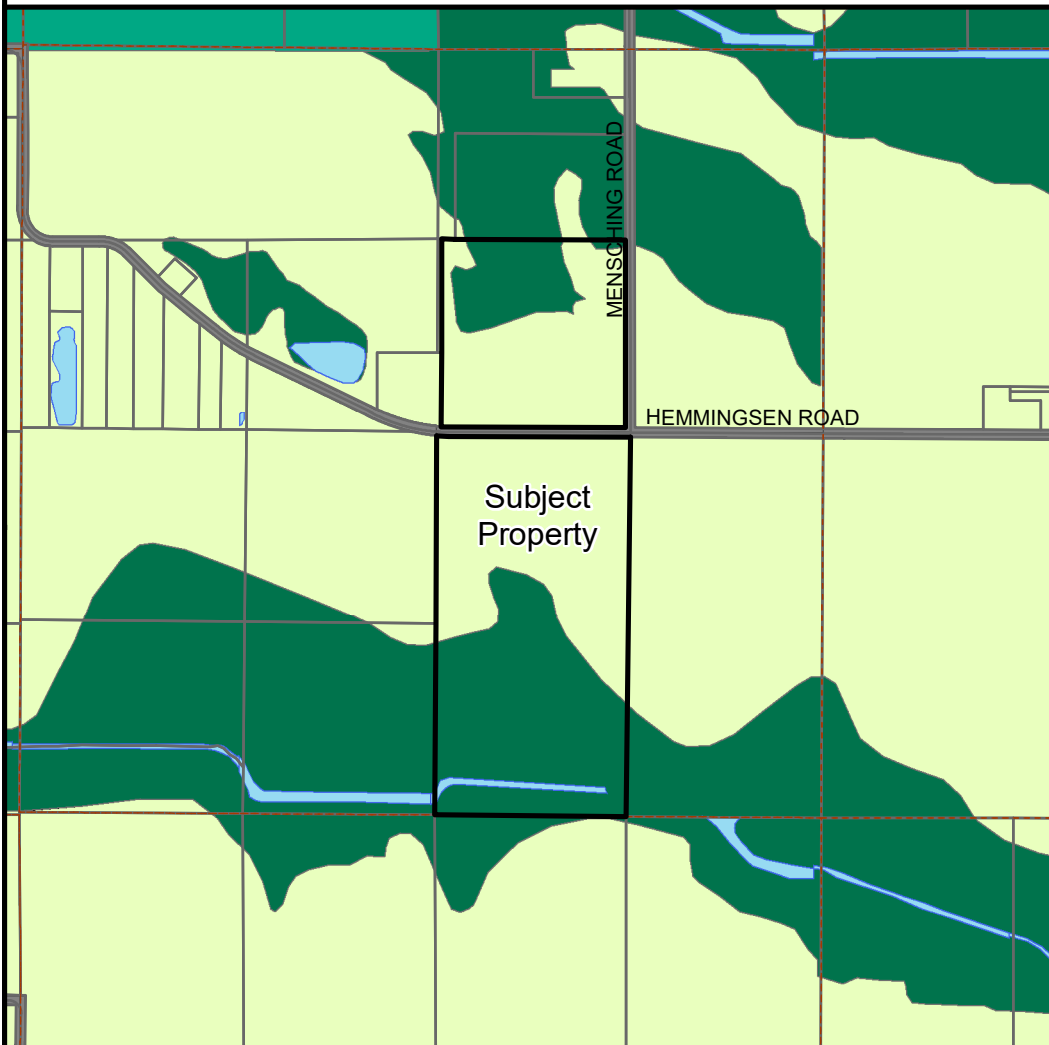
A-1 Agriculture

Adjacent Zoning

North: A-1 Agriculture
 South: A-1 Agriculture
 East: A-1 Agriculture
 West: A-1 Agriculture and
 A-2 Agriculture

- A-1 Agriculture
- A-2 Agriculture
- E-5 Estate
- E-3 Estate
- E-2 Estate
- E-1 Estate
- R-1 Single-Family Residential
- R-2 Two-Family Residential
- R-3 Multiple-Family Residential
- B-1 Neighborhood Business
- B-2 Neighborhood Business
- B-3 General Business
- O Office / Research
- I-1 Light Industrial
- I-2 Heavy Industrial
- PD Planned Development
- C Conditional Use
- V Variation
- Incorporated

McHenry County 2030 Comprehensive Plan Future Land Use Map



Future Land Use Map Designation Agricultural and Environmentally Sensitive Area

- Agricultural
 - Open Space
 - Environmentally Sensitive Area
 - Estate
 - Isolated Estate
 - Residential
 - Isolated Residential
 - Retail
 - Mixed Use
 - Office, Research, Industrial
 - Gov't, Institutional, Utilities
 - TOD Existing Rail Station
 - TOD Future Rail Station
 - Active Earth Extraction Site
 - Municipality
- Scale: 1 inch = 1/4 mile

Municipal / Township Plan Designations

Grafton Township: Agriculture

Huntley: Single-Family Estate

Lake in the Hills: No Designation

McHenry County 2030 Comprehensive Plan — Text Analysis

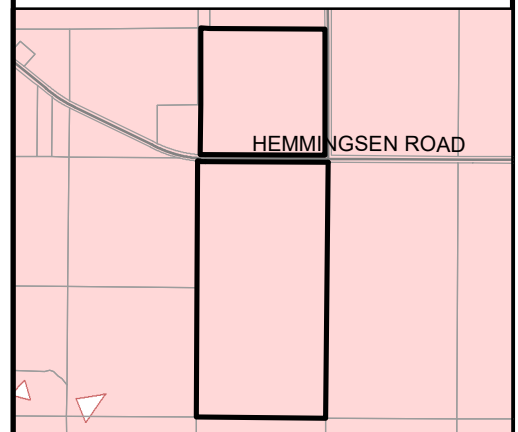
Land Use

AGRICULTURAL – represents existing agricultural acres, including cropland, pastureland, farm yards, and farmsteads, that should remain in agricultural use through the 2030 planning horizon. Development in the Agricultural District should be strictly limited to agriculture, agricultural residences, and agricultural support uses. (p. 134)

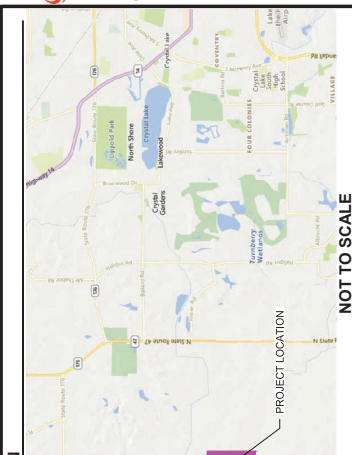
Sensitive Aquifer Recharge Areas

The site is located in a zone with elevated contamination potential.

Sensitive Aquifer Recharge Areas (SARA)



- Sensitive Recharge Area



SITE DATA

PROJECT 1	1847-200-210, 1847-400-001
PROPERTY OWNER	DONALD A. ZEDONIS, TR.
SITE ADDRESS	13409 HEMMINGESEN ROAD
PROJECT AREA	UNION, IL
PRELIMINARY SOLAR PANEL AREA	± 4.09 AC
PRELIMINARY DISTURBED AREA	± 23.96 AC
PRELIMINARY AREA SUBJECT TO CHANGE ***	± 26.96 AC
ZONING - EXISTING	MCHENRY COUNTY
ZONING - PROPOSED	A-1, CUP
CURRENT LAND USE	AGRICULTURE
PROPOSED LAND USE	SOLAR ENERGY SYSTEM
PARCEL SETBACK LINES	50 FT
MIN. FRONT YARD	50 FT
MIN. SIDE YARD	50 FT
MIN. REAR YARD	50 FT
NON-PARTICIPATING RESIDENCE	150 FT

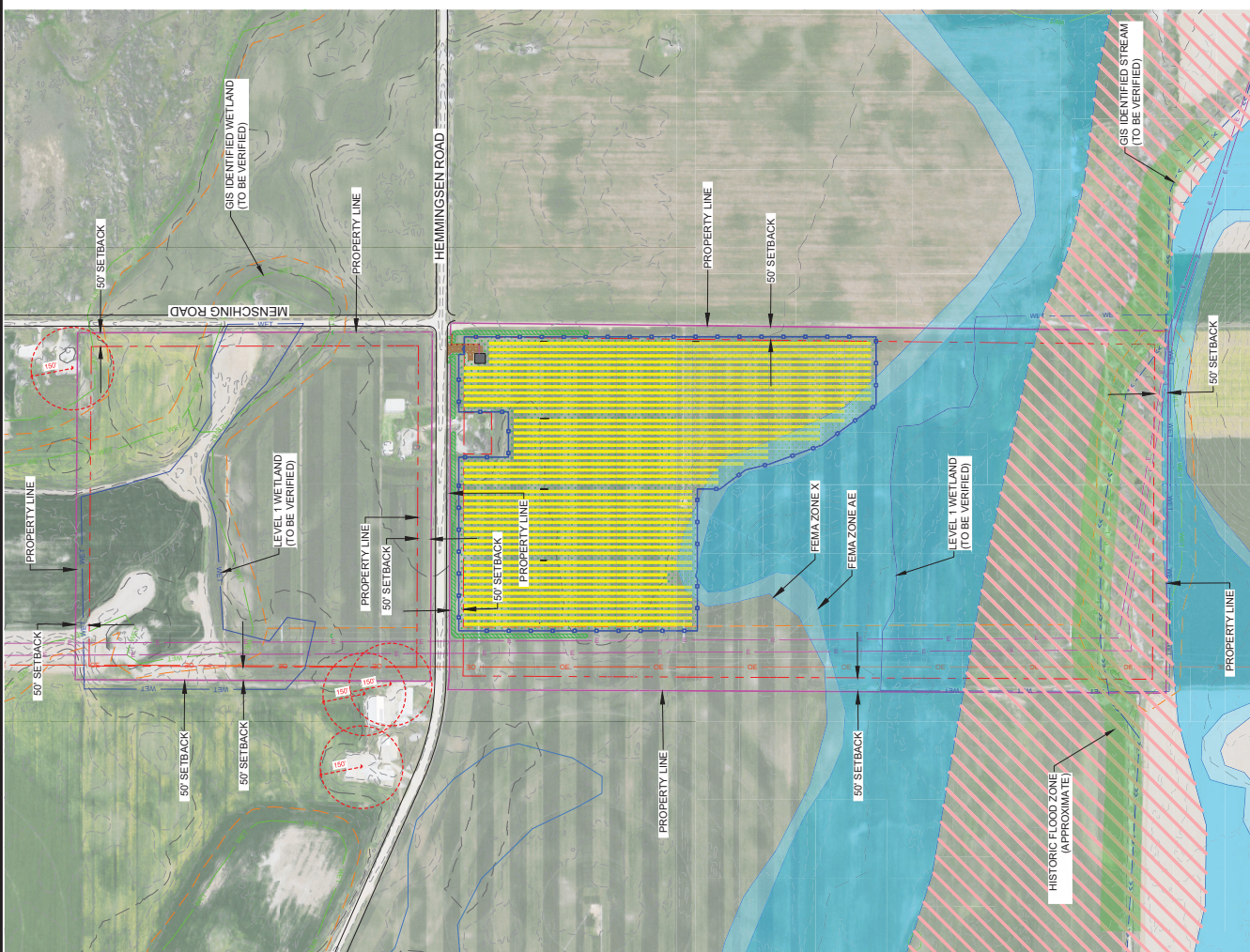
* SPECIAL USE PERMIT IS BEING PROPOSED TO CONSTRUCT / OPERATE A SOLAR FACILITY

- GENERAL NOTES**
- THE PURPOSE OF THIS PLAN IS FOR ZONING APPROVAL FOR REVIEW AND APPROVAL BY MCHENRY COUNTY TO CONSTRUCT A SOLAR ENERGY SYSTEM.
 - THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION PROVIDED BY MCHENRY COUNTY, USGS, FEMA, NATIONAL WETLANDS INVENTORY AND BING.
 - A PORTION OF THE SUBJECT PROPERTY LIES WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
 - NO PORTION OF THE SUBJECT PROPERTY CONTAINS KARST GEOLOGY ACCORDING TO THE U.S. GEOLOGICAL SURVEY OPEN-FILE REPORT 2004-132.
 - NO PORTION OF THE SUBJECT PROPERTY CONTAINS WELLS ACCORDING TO THE U.S. GEOLOGICAL SURVEY / AND HOMELAND INFRASTRUCTURE FOUNDATION - LEVEL DATA.
 - THE BUILDABLE AREA EXCLUDES ALL CONSTRAINTS OF THE SITE, INCLUDING REQUIRED PANEL SETBACKS, A BASE FLOOD ELEVATION OF 851 WAS USED TO ESTABLISH THE FEMA CONSTRAINT.
 - NO DRAIN TILE DATA PROVIDED OR SHOWN ON THIS CONSTRAINTS MAP.

ELECTRICAL DESIGN INFORMATION

PV MODULE BRAND	JA SOLAR
PV MODULE MODEL	JAM76D30-585/MB
PV MODULE TYPE	BIFACIAL
INVERTER BRAND	SMA
INVERTER	SUNNY HIGHPOWER PEAK3 160-US
GCR%	36%
RACKING	SINGLE AXIS, TRINA VANGUARD 1P
TOTAL # OF MODULES	12000
TOTAL # OF STRINGS	500
MODULES PER STRING	24
TOTAL # OF TRACKERS	184
TOTAL # OF INVERTERS	34
DC SYSTEM SIZE (MW)	7.020MW
AC SYSTEM SIZE (MW)	4.99 MW
DC/AC RATIO	1.40
ROW SPACING	14.36'
ACCESS ROAD WIDTH	16'
MAX & MIN TEMP	35°C & -26°C
SNOW LOAD & WIND SPEED (RISK CATEGORY III)	25 LBS/SQFT & 120 MPH

- LEGEND**
- DENOTES BUILDING SETBACK LINE
 - DENOTES EXISTING PARCEL LINE
 - DENOTES EXISTING CONTOUR
 - DENOTES EXISTING TREE LINE
 - DENOTES NW1 WETLAND
 - DENOTES POTENTIAL WETLAND LINE
 - DENOTES OVERHEAD TRANSMISSION LINE
 - DENOTES UNDERGROUND TRANSMISSION LINE
 - DENOTES GIS LOCATED STREAM/RIVER LINE
 - DENOTES 50 FOOT SETBACK LINE
 - DENOTES PROPOSED PANELS
 - DENOTES PROPOSED FENCE
 - DENOTES PROPOSED GRAVEL ACCESS ROAD
 - DENOTES PROPOSED CONCRETE
 - DENOTES PROPOSED UNDERGROUND MW FEEDER
 - SHORT GROWTH PERENNIAL POLLINATORS
 - DENOTES PROPOSED LANDSCAPE BUFFER (CONIFER, ARBOVITAE, VINES)
 - DENOTES FEMA FLOOD ZONE 'AE'
 - DENOTES FEMA FLOOD ZONE 'X'
 - DENOTES HISTORIC FLOOD ZONE
 - DENOTES REGULATORY FLOODWAY
- AREA WITHIN PERIMETER FENCE - 26.92 ACRES





February 20, 2024

Lucas Wandrie
Sr. Wildlife Ecologist
3822 Zenith Ave S

**RE: South Union Illinois Solar
Consultation Program
EcoCAT Review #2410681
McHenry County**

Dear Mr. Wandrie:

The Department has received your submission for this project for the purposes of consultation pursuant to the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action consists of a solar energy facility in McHenry County, IL.

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

Illinois Natural Areas Inventory (INAI)

Pleasant Valley

State Threatened or Endangered Species

Blanding's Turtle (*Emydoidea blandingii*)

Brassy Minnow (*Hybognathus hankinsoni*)

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

Due to the project scope and proximity to protected resources, the Department offers the following comments and recommends the following actions be taken to avoid adversely impacting listed species and protected natural areas in the vicinity of the project:

Pleasant Valley

The Department has determined that adverse impacts to this area are unlikely.

Blanding's Turtle

EcoCAT has indicated records for the state-listed Blanding's Turtle in vicinity of the project area. The Department recommends:

- Work on the project occurs during the turtle's inactive season from approximately November 1st to March 1st.
- If work must occur during the active season:
 - Exclusionary fencing should be installed around the work area, or at a minimum, to partition off any wetland areas before the active season (March 1st - November 1st). Exclusionary fencing should be trenched into the ground (a minimum of 4 inches) and inspected daily for Blanding's turtles. Fencing should be installed with turn-arounds at open ends and at any access openings needed in the fencing, in order to redirect animals away from openings.
 - All on-site personnel should be educated about this species and be instructed to stop work immediately and contact the Department (Brad Semel, Natural Heritage Division, 815-675-2386 ext. 216) if they are encountered in the project area. Fliers with photos of adult and juvenile Blanding's turtles, and life-history information, should be distributed to personnel.
 - Excavations should be inspected daily for trapped wildlife and safely covered overnight. Soil or other potential turtle nesting medium stockpiles should also have exclusionary fencing installed around the perimeter to discourage turtle nesting and potential harm.
 - A permanent exclusionary barrier between any wetlands and the project site should be incorporated into project plans to prevent turtles from entering areas where they may be adversely impacted by daily activity. The barrier should include turn-arounds where needed and be trenched into the soil a minimum of 4 inches.
 - If erosion control blanket is to be used, the Department also recommends that wildlife-friendly plastic-free blanket be used around wetlands and adjacent to natural areas, if not feasible to implement project wide, to prevent the entanglement of native wildlife.

Brassy Minnow & Yellow-headed Blackbird

The Department has determined that adverse impacts to these species are unlikely.

Given the above recommendations are adopted, the Department has determined that impacts to these protected resources are unlikely. The Department has determined impacts to other protected resources in the vicinity of the project location are also unlikely.

In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding these recommendations.

Consultation on the part of the Department is closed, unless the applicant desires additional information or advice related to this proposal. Consultation for Part 1075 is valid for two years unless new information becomes available which was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the action 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 project being considered, nor should it be a substitute for detailed site surveys or field surveys required for

environmental assessments. If additional protected resources are unexpectedly encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations.

This letter does not serve as permission to take any listed or endangered species. As a reminder, no take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the *Illinois Endangered Species Act*, the *Fish and Aquatic Life Act*, the *Wildlife Code* and other applicable authority.

The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area:

- The Department strongly recommends that the project proponent establish pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:
<https://dnr.illinois.gov/conservation/pollinatorscorecard.html>
- The site should be de-compacted before planting.
- Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.
- Required fencing, excluding areas near or adjacent to public access areas, should have a 6-inch gap along the bottom to prevent the restriction of wildlife movement. Woven wire or a suitable habitat wildlife friendly fence should be used. Barbed wire should be avoided.
- If tree clearing is necessary, the Department recommends removing trees between November 1st and March 31st to avoid impacts to the state-listed bats and birds.
- Required night lighting should follow International Dark-Sky Association (IDA) guidance to minimize the effect of light pollution on wildlife.

Please contact me with any questions about this review.

Sincerely,



Bradley Hayes
Manager, Impact Assessment Section
Division of Real Estate Services and Consultation
Office of Realty & Capital Planning
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
Bradley.Hayes@Illinois.gov
Phone: (217) 782-0031

McHENRY~LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

NATURAL RESOURCES INFORMATION REPORT

24-033-4589

March 26, 2024



This report has been prepared for:
South Union Illinois Solar LLC

Contact Person:
Conner Sayles

PREPARED BY:
McHENRY-LAKE COUNTY SOIL & WATER CONSERVATION
DISTRICT

1648 S. EASTWOOD DR.

WOODSTOCK, IL 60098

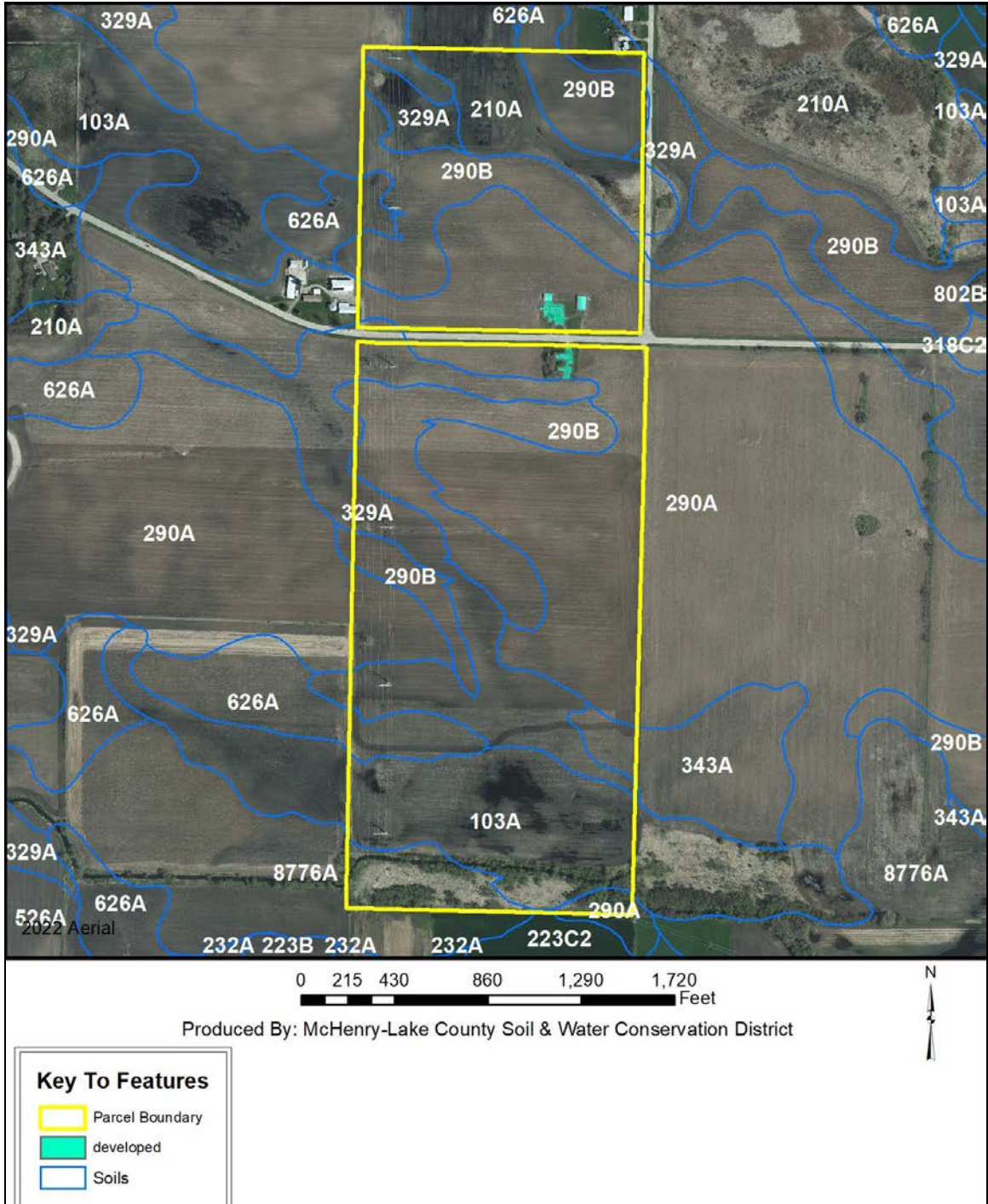
PHONE: (815) 338-0444

www.mchenryswcd.org

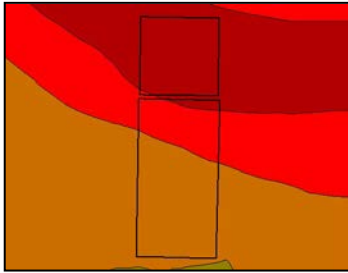
The McHenry-Lake County Soil & Water Conservation District
is an equal opportunity provider and employer.

EXECUTIVE SUMMARY OF NRI REPORT #24-033-4589

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

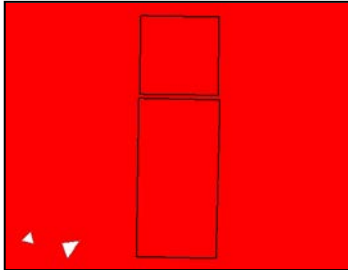


Groundwater Contamination Potential and Recharge Areas:



Aquifer Sensitivity Map (*This is the area beneath the soil profile down to bedrock)

The Geologic features map indicates the parcel is comprised of 40.39 acres of A1, 21.91 acres of A3, and 55.15 acres of B1 geologic limitations. A1 and A2 have a high contamination potential (red areas of map), and B1 has a moderately high contamination potential (orange areas of map).

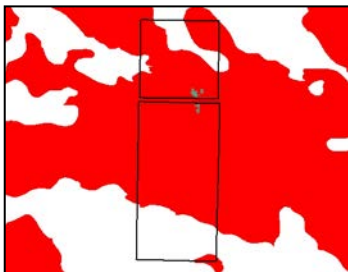


Sensitive Aquifer Recharge Areas (Includes the soil profile and underlying geology).

The Sensitive Aquifer Recharge Map indicates the entire parcel is within a Sensitive Aquifer Recharge Area (identified in red).

Soil Leachability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet).

The Soil Leachability Index indicates there are no moderate or high leach potentials for fertilizers (includes household use) identified.



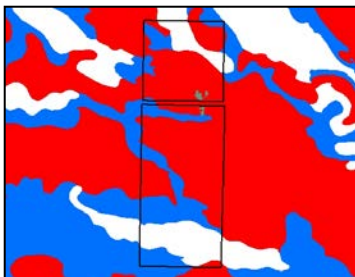
Soil Permeability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet. Soil permeability is a reflection of the speed in which water (with or without pollutants) can move through the soil profile.)

The USDA-NRCS Soil Survey Map of the area indicates 86.46 acres or 73.61% of the parcel contains highly permeable soils (identified in red).

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

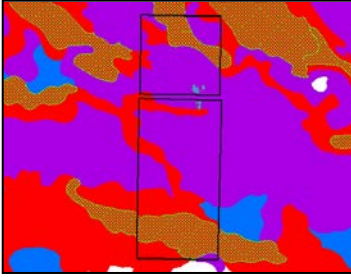
Erosion Ratings

The NRCS Soils Survey indicates 0.02 acres or 0.02% of the parcel contains Highly Erodible Soils. The McHenry-Lake SWCD has staff members certified in Sediment and Erosion Control and can aid the petitioner by reviewing erosion control plans and make recommendations.



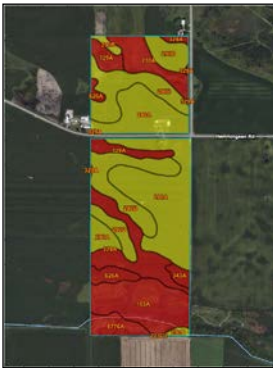
Prime Farmland Soils

The Natural Resources Conservation Service (NRCS) Soil Survey indicates 68.46 acres or 58.29% of the parcel is comprised of prime farmland soils (identified in red) and 25.78 acres or 21.95% of the parcel is comprised of prime when drained soils (identified in blue).



Hydric Soils

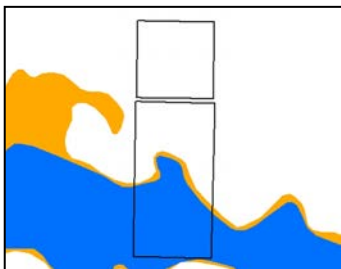
The NRCS Soil Survey indicates 48.43 acres or 41.24% of the parcel contains hydric soils (identified in red), 22.66 acres or 19.29% of the parcel contains organic soils (identified in green hatching), 1.41 acres or 1.20% of the parcel contains somewhat poorly drained soils (identified in blue), and 67.03 acres or 57.07% of the parcel contains soils with a water table greater than 4 feet (identified in purple).



Ground Based Solar Arrays

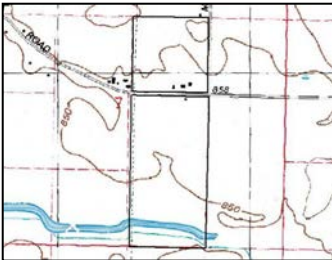
The NRCS Soils Survey indicates 49.0 acres or 41.7% of the parcel has severe limitations for Soil Anchored Solar Arrays (identified in red). The reason for the limitation can be found on page 23 of the report.

Floodplain Information:



The Flood Insurance Rate Map

Identifies 18.23 acres of AE Floodway and 20.86 acres of AE 100-year floodplain (identified in blue) on the parcel. Additionally, 3.72 acres of the parcel is 500-year floodplain (identified in orange).

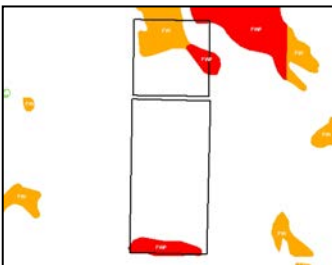


Flood of Record Map (Hydrologic Atlas)

The Flood of Record Map for this area indicates 3.29 acres of the parcel has previously flooded.

*The Overall Site Plan, prepared by WSB, dated March 7, 2024, indicate all the floodplain areas will be avoided.

Wetland Information:



USDA-NRCS Wetland Inventory

The NRCS Wetlands Inventory identifies 9.53 acres of farmed wetland (identified in orange) and 8.81 acres of farmed wetland pasture (identified in red) on the parcel.



ADID Wetland Inventory

The ADID Wetland Study identifies 9.53 acres of farmed wetland K1132, 2.55 acres of wetland K1242, 5.98 acres of wetland K1301, and 0.28 acres of High Functional Value Wetland K1220 on the parcel.

*The Overall Site Plan, prepared by WSB, dated March 7, 2024, indicate all the wetland areas will be avoided.

Cultural Resources: Office maps indicate there is a high probability for cultural resources within the southern portion of the parcel. 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.

Preserved or Recognized Ecological Sites: Office maps indicate Illinois Natural Areas Inventory and McHenry County Natural Area Inventory Site - Pleasant Valley is north of the parcel. Pleasant Valley is protected by the McHenry County Conservation District.

Woodlands: Mature trees are located around the existing structures and along the southern portion of the property.

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

Land Evaluation Site Assessment (LESA): The Land Evaluation Score for the parcel is 81.79. A Site Assessment was not completed due to the remaining agricultural Zoning.

Vegetation Within the Array: Information provided by the applicant indicate short growth perennial pollinator species will be planted within the array.

ADDITIONAL CONCERNS

An Agriculture Mitigation Agreement with the Illinois Department of Agriculture should be completed. The agreement should address decommissioning of the site after the lifespan of the facility has been reached. It is recommended that all panels, piles, transformers, underground lines, and fencing be completely removed from the site. If underground lines are to remain, they should have at least 5 feet of cover to adequately allow farming operations to commence after the facility's removal. A template can be found on the Illinois Department of Agriculture's website.



NATURAL RESOURCE INFORMATION REPORT (NRI)

NRI Report Number	24-033-4589	
Applicant's Name	South Union Illinois Solar LLC	
Size of Parcel	119 acres	
Zoning Change	A-1 Conditional Use for Solar Facility	
Parcel Index Number(s)	18-07-400-001, 18-07-200-010	
Common Location	Undefined	
Contact Person	Conner Sayles	
<i>Copies of this report or notification of the proposed land-use change were provided to:</i>	<i>yes</i>	<i>no</i>
The Applicant/Contact Person	x	
The Local/Township Planning Commission		x
The Village/City/County Planning and Zoning Department or Appropriate Agency	x	

Report Prepared By: *Spring M. Duffey*

Position: *Executive Director*

Linnea Kooistra:

Mr. Jurs.

Thomas Jurs:

Yes.

Linnea Kooistra:

Ms. Donner.

Mary Donner:

Yes.

Linnea Kooistra:

Mr. Kurnik.

William Kurnik:

Yes.

Linnea Kooistra:

And I'll vote yes. So the conditions are approved, six to zero. Or I'm sorry, seven to zero. At this time I would entertain a motion on the petition.

Vicki Gartner:

So moved.

Linnea Kooistra:

So to approve.

Mary Donner:

so approved.

Linnea Kooistra:

Okay. It's been moved by Ms. Gartner, seconded by Ms. Donner. Discussion Ms. Gartner.

Vicki Gartner:

This property is 118.88 acres, not all of which will be used on South sides of Hemmingsen Road and adjacent to the intersection of Hemmingsen and Mensching roads. I believe the standards have been met for this project. As everyone is aware, we really are pretty much obligated to vote yes on any projects that do meet the standards. And as far as solar farms, I think that this is a passive use. I think it is something that... I'm not going to say our county welcomes many solar farms as we can get, but it is a use that is good. It preserves our farmland. It doesn't contaminate the land as other uses might. And sometimes these work out and sometimes they don't. So I am in favor.

Linnea Kooistra:

Mr. Kosin.

Robert Kosin:

Thank you Madam Chairman. As the record has been presented and the testimony given, I'll be in favor of the application.

Linnea Kooistra:

Mr. Schnable.

Kurt Schnable:

I'll vote for the application.

Linnea Kooistra:

Mr. Jurs.

Thomas Jurs:

My record on these is probably at least 50% in favor, as most of you already know. This is the first one in how many years I've been in this board that had agricultural infrastructure, a very, very expensive nature, a center pivot. This is the first one to my knowledge that we've ever voted on it had this much infrastructure in the ground, where you're taking it out of Ag production and putting it into solar. I think the figures are skewed a little bit with the 118 acres. And they're only considering the northern half of the southern parcel, which is the cream of the crop of dirt, pretty much commonly known as dream dirt. Its award-winning yields recognized by the state of Illinois in Springfield, and therefore I vote no.

Linnea Kooistra:

Oh, we're not voting. We're just taking comments right now but-

Thomas Jurs:

That's my comments. They asked me later for the vote.

Linnea Kooistra:

Ms. Donner.

Mary Donner:

Again, I find the whole taxing issue kind of problematic, but that's not the issue that we're voting on. This is it a land use? Is it a good land use? The dream may be something that's going to be even better once this is decommissioned and the native plants that are then in there... I can't speak to whatever it is that has a pivot. I know what it is, I can't... As much as that makes a difference, I can't have it make a difference in my vote, so I will be voting for it.

Linnea Kooistra:

Mr. Kurnik.

William Kurnik:

I would vote in favor as well, with just a couple of comments. Based upon the materials that we've been provided, this project is not going to have any impact on a potential wetlands. It's not going to impact any environmental sensitive area. At least with the additional plantings that are supposed to be on the property. It should improve water flow off the property, improve what is a sensitive aquifer recharge area.

That this land score may be greater than 81. Unfortunately, in Public Act 102, 1123 doesn't draw a distinction between the quality of land that a petitioner proposes to put a solar farm on. In that respect, our hands are tied. So given those comments, I would vote in favor as well.

Linnea Kooistra:

I would agree with the comments of Mr. Kurnik. It's really tough because of the infrastructure that's on there. But again, the state standards being what they are, if this project meets them, the issue with the irrigation system is between the current tenant and the landowner. Really not with the solar project itself. And I feel bad for the person who invested that money, who now, if the landowners decided to go into a lease with a solar farm, but that's not the issue before us.

Linnea Kooistra:

But the issue of the soil, the nice thing about a solar farm is that at any time, if this is decommissioned for any reason, that solar power is no longer appropriate. All those posts are pulled out and that beautiful soil is still there. It can easily go back into row crop production. It's not like any type of other production, or any other type of development that then ruins that soil. This maintains that soil. It's right at the surface. It's not disturbed, except for posts going in. And so when this is no longer a solar farm, that soil will be there to produce food for the world. So for that, I'm grateful for it, with these solar farms. And I think it meets the standards in our ordinance. And so I'm in favor of the request. So at this time I'll call for the vote. Ms. Gartner?

Vicki Gartner:

Yes.

Linnea Kooistra:

Mr. Kosin.

Robert Kosin:

Yes.

Linnea Kooistra:

Mr. Schnable.

Kurt Schnable:

Yes.

Linnea Kooistra:

Mr. Jurs.

Thomas Jurs:

No.

Linnea Kooistra:

Ms. Donner.

Mary Donner:

This transcript was exported on Jun 05, 2024 - view latest version [here](#).

Yes.

Linnea Kooistra:

Mr. Kurnik.

William Kurnik:

Yes.

Linnea Kooistra:

And I'll vote yes. So the sub-vote of the county board with a six to one vote approving. At this time, the hearing is closed.

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between

South Union Illinois Solar LLC

and the

ILLINOIS DEPARTMENT OF AGRICULTURE

Pertaining to the Construction of a Commercial Solar Energy Facility

in

McHenry County, Illinois

Pursuant to the Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147), the following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Deconstruction of a Commercial Solar Energy Facility. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and solar energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA).

South Union Illinois Solar LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 4.999MWac Commercial Solar Energy Facility in McHenry County [GPS Coordinates: 42.2184, -88.4588], which will consist of up to 35 acres that will be covered by solar facility related components, such as solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers and any affiliated electric transmission lines. This AIMA is made and entered between the Facility Owner and the IDOA.

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

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

Conditions of the AIMA

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

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

- D. All provisions of this AIMA shall apply to associated future Construction, maintenance, repairs, and Deconstruction of the Facility referenced by this AIMA.
- E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.
- H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.
- I. No later than 45 days prior to the Construction and/or Deconstruction of a Facility, the Facility Owner shall provide the Landowner(s) with a telephone number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.
- J. If there is a change in ownership of the Facility, the Facility Owner assuming ownership of the Facility shall provide written notice within 90 days of ownership transfer, to the Department, the County, and to Landowners of such change. The Financial Assurance requirements and the other terms of this AIMA shall apply to the new Facility Owner.
- K. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.
- L. Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide the IDOA with a list of all Landowners that are party to an Underlying Agreement and known Tenants of said Landowner who may be affected by the Facility. As the list of Landowners and Tenants is updated, the Facility Owner shall notify the IDOA of any additions or deletions.
- M. If any provision of this AIMA is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the AIMA shall be interpreted as if it did not contain the unenforceable provision.

Definitions

Abandonment

When Deconstruction has not been completed within 12 months after the Commercial Solar Energy Facility reaches the end of its useful life. For purposes of this definition, a Commercial Solar Energy Facility shall be presumed to have reached the end of its useful life if the Commercial Solar Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with an Underlying Agreement.

South Union Illinois Solar LLC
Standard Solar Agricultural Impact Mitigation Agreement

Aboveground Cable	Electrical power lines installed above ground surface to be utilized for conveyance of power from the solar panels to the solar facility inverter and/or point of interconnection to utility grid or customer electric meter.
Agricultural Impact Mitigation Agreement (AIMA)	The Agreement between the Facility Owner and the Illinois Department of Agriculture (IDOA) described herein.
Agricultural Land	Land used for Cropland, hayland, pastureland, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government conservation programs used for purposes as set forth above.
Best Efforts	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date	The calendar date of which the Facility Owner notifies the Landowner, County, and IDOA in writing that commercial operation of the facility has commenced. If the Facility Owner fails to provide such notifications, the Commercial Operation Date shall be the execution date of this AIMA plus 6 months.
Commercial Solar Energy Facility (Facility)	A solar energy conversion facility equal to or greater than 500 kilowatts in total nameplate capacity, including a solar energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before June 29, 2018. "Commercial solar energy facility" does not include a solar energy conversion facility: (1) for which a permit to construct has been issued before June 29, 2018; (2) that is located on land owned by the commercial solar energy facility owner; (3) that was constructed before June 29, 2018; or (4) that is located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load and is limited in nameplate capacity to less than or equal to 2,000 kilowatts.
Commercial Solar Energy Facility Owner deemed (Facility Owner)	A person or entity that owns a commercial solar energy facility. A Commercial Solar Energy Facility Owner is not nor shall it be to be a public utility as defined in the Public Utilities Act.
County	The County or Counties where the Commercial Solar Energy Facility is located.
Construction	The installation, preparation for installation and/or repair of a Facility.
Cropland	Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.

Deconstruction	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
Deconstruction Plan	A plan prepared by a Professional Engineer, at the Facility's expense, that includes: <ol style="list-style-type: none">(1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things:<ol style="list-style-type: none">i. the number of solar panels, racking, and related facilities involved;ii. the original Construction costs of the Facility;iii. the size and capacity, in megawatts of the Facility;iv. the salvage value of the facilities (if all interests in salvage value are subordinate to that of the Financial Assurance holder if abandonment occurs);v. the Construction method and techniques for the Facility and for other similar facilities; and(2) a comprehensive detailed description of how the Facility Owner plans to pay for the Deconstruction of the Facility.
Department	The Illinois Department of Agriculture (IDOA).
Financial Assurance	A reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary.
Landowner	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as "Prime Farmland" (generally considered to be the most productive soils with the least input of nutrients and management).
Professional Engineer	An engineer licensed to practice engineering in the State of Illinois.
Soil and Water Conservation District (SWCD)	A unit of local government that provides technical and financial assistance to eligible Landowners for the conservation of soil and water resources.
Tenant	Any person, apart from the Facility Owner, lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement	The written agreement between the Facility Owner and the Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Facility on the property of the Landowner.

Underground Cable	Electrical power lines installed below the ground surface to be utilized for conveyance of power within a Facility or from a Commercial Solar Energy Facility to the electric grid.
USDA Natural Resources Conservation Service (NRCS)	An agency of the United States Department of Agriculture that provides America's farmers with financial and technical assistance to aid with natural resources conservation.

Construction and Deconstruction Standards and Policies

1. Support Structures

- A. Only single pole support structures shall be used for the Construction and operation of the Facility on Agricultural Land. Other types of support structures, such as lattice towers or H-frames, may be used on nonagricultural land.
- B. Where a Facility's Aboveground Cable will be adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures shall be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.
- C. When it is not possible to locate Aboveground Cable next to highway or railroad right-of-way, Best Efforts shall be expended to place all support poles in such a manner to minimize their placement on Cropland (i.e., longer than normal above ground spans shall be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for facilities shall be selected in a manner that is as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains or is adjacent to the Facility.

3. Guy Wires and Anchors

Best Efforts shall be made to place guy wires and their anchors, if used, out of Cropland, pastureland and hayland, placing them instead along existing utilization lines and on land other than Cropland. Where this is not feasible, Best Efforts shall be made to minimize guy wire impact on Cropland. All guy wires shall be shielded with highly visible guards.

4. Underground Cabling Depth

- A. Underground electrical cables located outside the perimeter of the (fence) of the solar panels shall be buried with:
 1. a minimum of 5 feet of top cover where they cross Cropland.
 2. a minimum of 5 feet of top cover where they cross pastureland or other non-Cropland classified as Prime Farmland.
 3. a minimum of 3 feet of top cover where they cross pastureland and other Agricultural Land not classified as Prime Farmland.

4. a minimum of 3 feet of top cover where they cross wooded/brushy land.
 - B. Provided that the Facility Owner removes the cables during Deconstruction, underground electric cables may be installed to a minimum depth of 18 inches:
 1. Within the fenced perimeter of the Facility; or
 2. When buried under an access road associated with the Facility provided that the location and depth of cabling is clearly marked at the surface.
 - C. If Underground Cables within the fenced perimeter of the solar panels are installed to a minimum depth of 5 feet, they may remain in place after Deconstruction.
- 5. Topsoil Removal and Replacement**
- A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts shall be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.
 - B. Best Efforts shall be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.
 - C. When backfilling an excavation site, Best Efforts shall be used to ensure the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.
 - D. Refer to Section 7 for procedures pertaining to rock removal from the subsoil and topsoil.
 - E. Refer to Section 8 for procedures pertaining to the repair of compaction and rutting of the topsoil.
 - F. Best Efforts shall be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance shall the topsoil materials be used for any other purpose unless agreed to explicitly and in writing by the Landowner.
 - G. Based on the mutual agreement of the landowner and Facility Owner, excess soil material resulting from solar facility excavation shall either be removed or stored on the Landowner's property and reseeded per the applicable National Pollution Discharge Elimination System (NPDES) permit/Stormwater Pollution Prevention Plan (SWPPP). After the Facility reaches the end of its Useful Life, the excess subsoil material shall be returned to an excavation site or removed from the Landowner's property, unless otherwise agreed to by Landowner.
- 6. Rerouting and Permanent Repair of Agricultural Drainage Tiles**
- The following standards and policies shall apply to underground drainage tile line(s) directly or indirectly affected by Construction and/or Deconstruction:
- A. Prior to Construction, the Facility Owner shall work with the Landowner to identify drainage tile lines traversing the property subject to the Underlying Agreement to the extent reasonably practicable. All drainage tile lines identified in this manner shall be shown on the Construction and Deconstruction Plans.

- B. The location of all drainage tile lines located adjacent to or within the footprint of the Facility shall be recorded using Global Positioning Systems (GPS) technology. Within 60 days after Construction is complete, the Facility Owner shall provide the Landowner, the IDOA, and the respective County Soil and Water Conservation District (SWCD) with "as built" drawings (strip maps) showing the location of all drainage tile lines by survey station encountered in the Construction of the Facility, including any tile line repair location(s), and any underground cable installed as part of the Facility.

C. Maintaining Surrounding Area Subsurface Drainage

If drainage tile lines are damaged by the Facility, the Facility Owner shall repair the lines or install new drainage tile line(s) of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the Facility. If the damaged tile lines cause an unreasonable disruption to the drainage system, as determined by the Landowner, then such repairs shall be made promptly to ensure appropriate drainage. Any new line(s) may be located outside of, but adjacent to the perimeter of the Facility. Disrupted adjacent drainage tile lines shall be attached thereto to provide an adequate outlet for the disrupted adjacent tile lines.

D. Re-establishing Subsurface Drainage Within Facility Footprint

Following Deconstruction and using Best Efforts, if underground drainage tile lines were present within the footprint of the facility and were severed or otherwise damaged during original Construction, facility operation, and/or facility Deconstruction, the Facility Owner shall repair existing drainage tiles or install new drainage tile lines of comparable quality and cost to the original, within the footprint of the Facility with sufficient capacity to restore the underground drainage capacity that existed within the footprint of the Facility prior to Construction. Such installation shall be completed within 12 months after the end of the useful life of the Facility and shall be compliant with Figures 1 and 2 to this Agreement or based on prudent industry standards if agreed to by Landowner.

- E. If there is any dispute between the Landowner and the Facility Owner on the method of permanent drainage tile line repair, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.
- F. During Deconstruction, all additional permanent drainage tile line repairs beyond those included above in Section 6.D. must be made within 30 days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner. If the Facility Owner and Landowner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may implement the recommendations of the appropriate County SWCD and such implementation constitutes compliance with this provision.
- G. Following completion of the work required pursuant to this Section, the Facility Owner shall be responsible for correcting all drainage tile line repairs that fail due to Construction and/or Deconstruction for one year following the completion of Construction or Deconstruction, provided those repairs were made by the Facility Owner. The Facility Owner shall not be responsible for drainage tile repairs that the Facility Owner pays the Landowner to perform.

7. Rock Removal

With any excavations, the following rock removal procedures pertain only to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged or were brought to the site as a result of Construction and/or Deconstruction.

- A. Before replacing any topsoil, Best Efforts shall be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which emerged or were brought to the site as a result of Construction and/or Deconstruction.
- B. If trenching, blasting, or boring operations are required through rocky terrain, precautions shall be taken to minimize the potential for oversized rocks to become interspersed in adjacent soil material.
- C. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, shall be removed from the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Repair of Compaction and Rutting

- A. Unless the Landowner opts to do the restoration work on compaction and rutting, after the topsoil has been replaced post-Deconstruction, all areas within the boundaries of the Facility that were traversed by vehicles and Construction and/or Deconstruction equipment that exhibit compaction and rutting shall be restored by the Facility Owner. All prior Cropland shall be ripped at least 18 inches deep or to the extent practicable, and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drainage tile lines or underground utilities may necessitate less ripping depth. The disturbed area shall then be disked.
- B. All ripping and disking shall be done at a time when the soil is dry enough for normal tillage operations to occur on Cropland adjacent to the Facility.
- C. The Facility Owner shall restore all rutted land to a condition as close as possible to its original condition upon Deconstruction, unless necessary earlier as determined by the Landowner.
- D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on agricultural land during times when normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. With input from the landowner, wet weather conditions may be determined on a field by field basis.

- A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.

- B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which may mix subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be made in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated tenant or designee.

10. Prevention of Soil Erosion

- A. The Facility Owner shall work with Landowners and create and follow a SWPPP to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Facility.
- B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's property, the Facility Owner shall consider the recommendations of the appropriate County SWCD to resolve the disagreement.
- C. The Facility Owner may, per the requirements of the project SWPPP and in consultation with the Landowner, seed appropriate vegetation around all panels and other facility components to prevent erosion. The Facility Owner must utilize Best Efforts to ensure that all seed mixes will be as free of any noxious weed seeds as possible. The Facility Owner shall consult with the Landowner regarding appropriate varieties to seed.

11. Repair of Damaged Soil Conservation Practices

Consultation with the appropriate County SWCD by the Facility Owner shall be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of the Facility. Those conservation practices shall be restored to their preconstruction condition as close as reasonably practicable following Deconstruction in accordance with USDA NRCS technical standards. All repair costs shall be the responsibility of the Facility Owner.

12. Compensation for Damages to Private Property

The Facility Owner shall reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Agricultural Land shall be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

13. Clearing of Trees and Brush

- A. If trees are to be removed for the Construction or Deconstruction of a Facility, the Facility Owner shall consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.
- B. If there are trees of commercial or other value to the Landowner, the Facility Owner shall allow the Landowner the right to retain ownership of the trees to be removed and the disposition of the removed trees shall be negotiated prior to the commencement of land clearing.

14. Access Roads

- A. To the extent practicable, access roads shall be designed to not impede surface drainage and shall be built to minimize soil erosion on or near the access roads.

- B. Access roads may be left intact during Construction, operation or Deconstruction through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations.
- C. If the access roads are removed, Best Efforts shall be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping shall be performed consistent with Section 8.

15. Weed/Vegetation Control

- A. The Facility Owner shall provide for weed control in a manner that prevents the spread of weeds. Chemical control, if used, shall be done by an appropriately licensed pesticide applicator.
- B. The Facility Owner shall be responsible for the reimbursement of all reasonable costs incurred by owners of agricultural land where it has been determined by the appropriate state or county entity that weeds have spread from the Facility to their property. Reimbursement is contingent upon written notice to the Facility Owner. Facility Owner shall reimburse the property owner within 45 days after notice is received.
- C. The Facility Owner shall ensure that all vegetation growing within the perimeter of the Facility is properly and appropriately maintained. Maintenance may include, but not be limited to, mowing, trimming, chemical control, or the use of livestock as agreed to by the Landowner.
- D. The Deconstruction plans must include provisions for the removal of all weed control equipment used in the Facility, including weed-control fabrics or other ground covers.

16. Indemnification of Landowners

The Facility Owner shall indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the Commercial Solar Energy Facility, including Construction and Deconstruction thereof, and also including damage to such Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns.

17. Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities

- A. Deconstruction of a Facility shall include the removal/disposition of all solar related equipment/facilities, including the following utilized for operation of the Facility and located on Landowner property:
 - 1. Solar panels, cells and modules;
 - 2. Solar panel mounts and racking, including any helical piles, ground screws, ballasts, or other anchoring systems;
 - 3. Solar panel foundations, if used (to depth of 5 feet);

4. Transformers, inverters, energy storage facilities, or substations, including all components and foundations; however, Underground Cables at a depth of 5 feet or greater may be left in place;
 5. Overhead collection system components;
 6. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
 7. Access Road(s) unless Landowner requests in writing that the access road is to remain;
 8. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
 9. Debris and litter generated by Deconstruction and Deconstruction crews.
- B. The Facility Owner shall, at its expense, complete Deconstruction of a Facility within twelve (12) months after the end of the useful life of the Facility.
- C. During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan. The Facility Owner shall file an updated Deconstruction Plan with the County on or before the end of the tenth year of commercial operation.
- D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:
1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
 2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
 3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the updated Deconstruction Plan provided during the tenth year of commercial operation.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

- E. The County may, but is not required to, reevaluate the estimated costs of Deconstruction of any Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased Financial Assurance levels described in Section 17.D. required from the Facility Owner. If the County is unable to its satisfaction to perform the investigations necessary to approve the Deconstruction Plan filed by the Facility Owner, then the County and Facility may mutually agree on the selection of a Professional Engineer independent of the Facility Owner to conduct any necessary investigations. The Facility Owner shall be responsible for the cost of any such investigations.
- F. Upon Abandonment, the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance.

Concurrence of the Parties to this AIMA

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

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

**STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE**

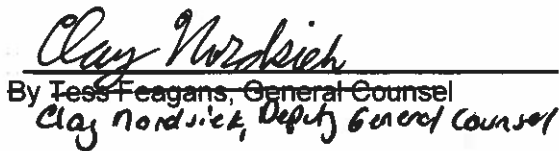


By: Jerry Costello II, Director

South Union Illinois Solar LLC



By: Kaya Tarhan



By ~~Tess Feagans, General Counsel~~
Clay Nordreich, Deputy General Counsel

1083 N. Collier Blvd #408

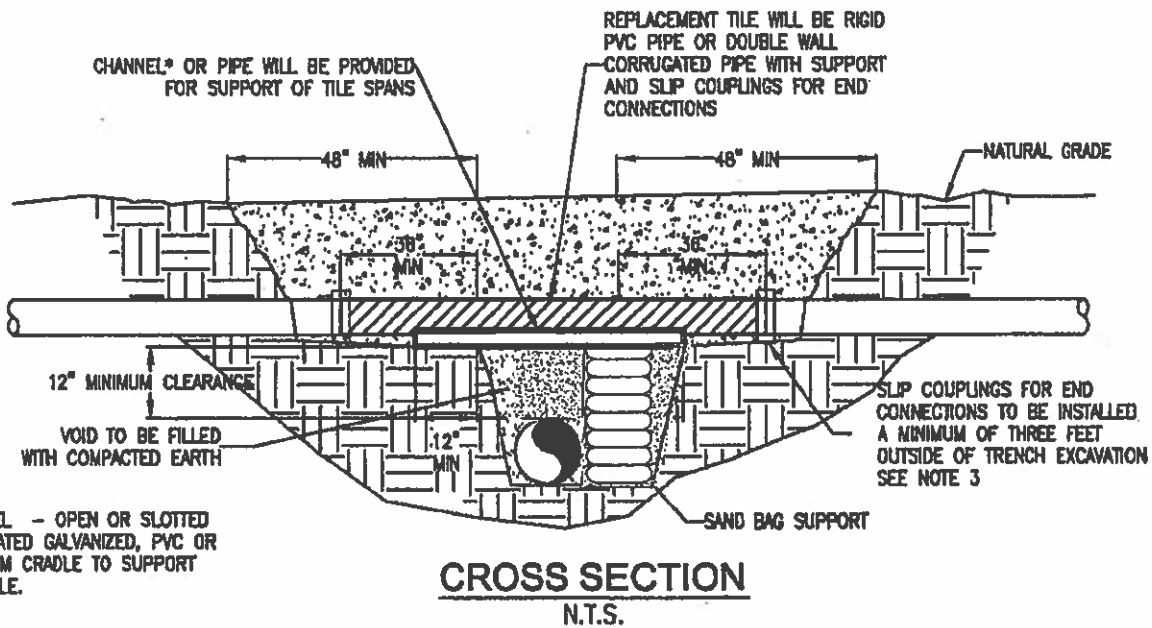
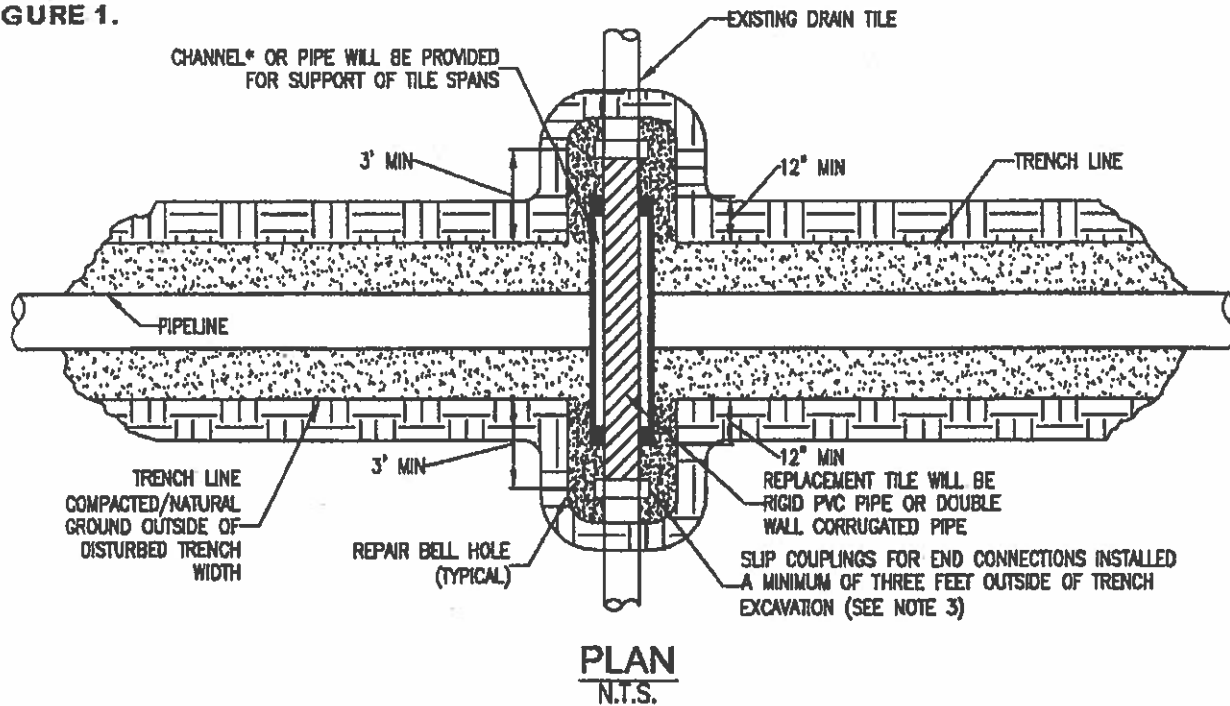
Address

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

3/26/24, 2024

March 4th, 2024

FIGURE 1.



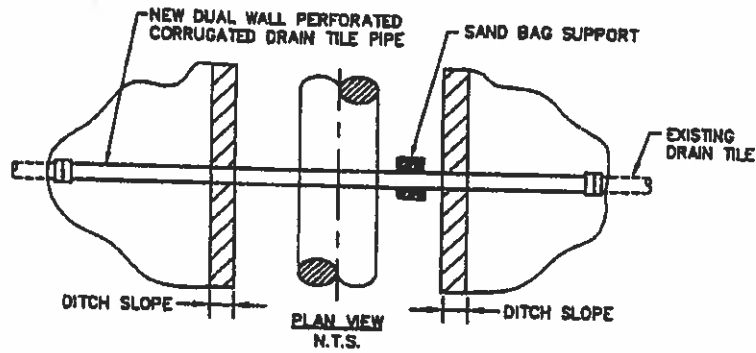
*CHANNEL - OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

NOTE:

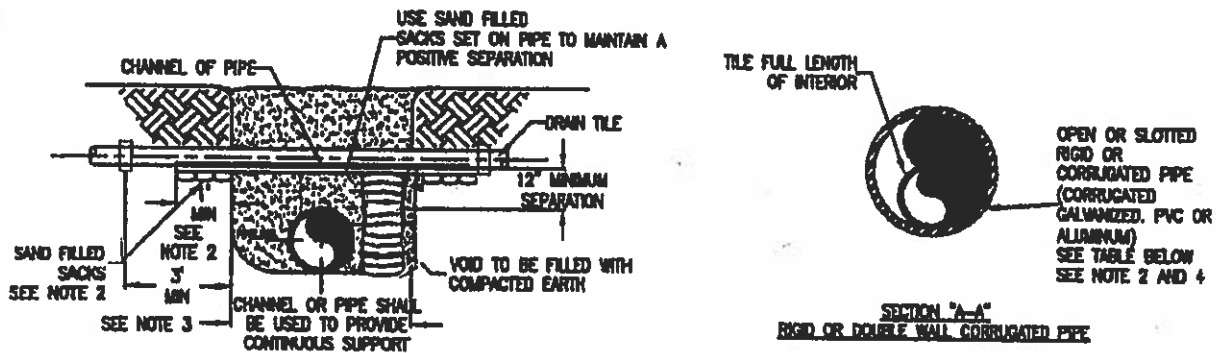
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4 #/ft	4"	STD. WT.
4"-5"	5" @ 6.7 #/ft	6"	STD. WT.
6"-9"	7" @ 9.8 #/ft	8"-10"	STD. WT.
10"	10" @ 15.3 #/ft	12"	STD. WT.

NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR