



LINCOLN COUNTY PLANNING & INSPECTIONS DEPARTMENT

115 W. MAIN ST., LINCOLNTON, NORTH CAROLINA 28092
704-736-8440 OFFICE 704-736-8434 INSPECTION REQUEST LINE \

To: Board of Commissioners
Planning Board

From: Randy Hawkins, Zoning Administrator

Date: March 13, 2020

Re: CUP #420
Hornet Solar, LLC
Parcel ID# 29536, 33495, 33572, 33949, 34232, 54666, 55956, 57984, 57985
and 88482

The following information is for use by the Lincoln County Board of Commissioners and Planning Board at their joint meeting/public hearing on April 6, 2020.

REQUEST

The applicant is requesting a conditional use permit to establish a solar farm in the R-T (Transitional Residential) district and in the Eastern Lincoln Development District (ELDD). The proposed site of the solar farm includes 708 acres in Lincoln County and 791 acres in Gaston County. All of the property in Lincoln County is zoned R-T. Approximately 6.5 acres located south of Old Plank Road lies within the ELDD overlay district. A solar farm is a conditional use in the R-T and ELDD districts.

SITE AREA AND DESCRIPTION

The Lincoln County portion of the site is located south of Old Plank Road, on both sides of June Dellinger Road and about 2,000 feet west of N.C. 16 Business. Land uses in this area are primarily residential and agricultural. This subject property is part of an area designated by the Land Use Plan as Large Lot Residential.

SOLAR FARM STANDARDS

The UDO establishes the following standards for a solar farm:

§4.3.7. Solar Farm

- A.** All structures and security fencing shall be set back a minimum of 50 feet from property lines and road right-of-ways.

- B. Where a site abuts a public road or property with a residential use, the following screening shall be provided unless a modification is approved by the Board of Commissioners: two parallel rows of evergreen trees or shrubs, a minimum of five feet in height at planting, arranged in a staggered manner a maximum of 10 feet apart in each row, with the rows a maximum of 10 feet apart.
- C. No panel structures shall be greater than 20 feet in height.
- D. The electrical collection system shall be placed underground except near points of interconnection with the electric grid.
- E. A map analysis showing a radius of five nautical miles from the center of the project with any airport operations in the area highlighted shall be submitted with the conditional use permit application. If a Federal Aviation Administration (FAA) regulated airport is located within the radius, all required information shall be submitted to the FAA for review. Proof of delivery of notification and date of delivery shall be submitted with the permit application.
- F. A decommissioning plan signed by the party responsible for decommissioning and the landowner shall be submitted with the permit application and shall be recorded with the Register of Deeds prior to final electrical inspection. The plan shall include the following information: defined conditions upon which decommissioning will be initiated, the anticipated manner in which the solar farm project will be decommissioned and the site restored, a timetable for completion of decommissioning, description of any agreement with the landowner regarding decommissioning, the party responsible for decommissioning, and plans for updating the decommissioning plan.
- G. A solar farm that ceases to produce energy on a continuous basis for 12 months shall be considered abandoned and the property owner and other responsible party shall be required to decommission the facility and restore the site to its prior condition within 12 months from the time that the facility is deemed to be abandoned, unless substantial evidence is presented to the Director of the intent to maintain and reinstate the operation of the facility.
- H. In the event the property owner and/or responsible party fail to timely decommission the solar farm facility as required above, Lincoln County and the Director shall be entitled to take all measures allowed by this UDO and the North Carolina General Statutes, including, but not limited to, the right to levy penalties as provided in §11.2.1, the right to obtain a permanent injunction ordering the removal of such solar farm facility, and the right to obtain a court order permitting Lincoln County to remove such solar farm facility.



County Of Lincoln, North Carolina

Planning Board

Applicant **Hornet Solar, LLC**

Application No. **CUP #420**

Location **south of Old Plank Road, west of N.C. 16 Business, along both sides of Old Plank Road and bordering the Gaston County line**

Parcel # **29536, 33495, 33572, 33949, 34232, 54666, 55956, 57984, 57985 and 88482**

Zoning District **R-T, ELDD**

Proposed Use **solar farm**

FINDINGS OF FACT

1. The use will not materially endanger the public health or safety if located where proposed and developed according to plan. YES _____ NO _____

FACTUAL REASONS CITED: _____

2. The use meets all required conditions and specifications. YES _____ NO _____

FACTUAL REASONS CITED: _____

3. The use will not substantially injure the value of adjoining or abutting property unless the use is a public necessity. YES _____ NO _____

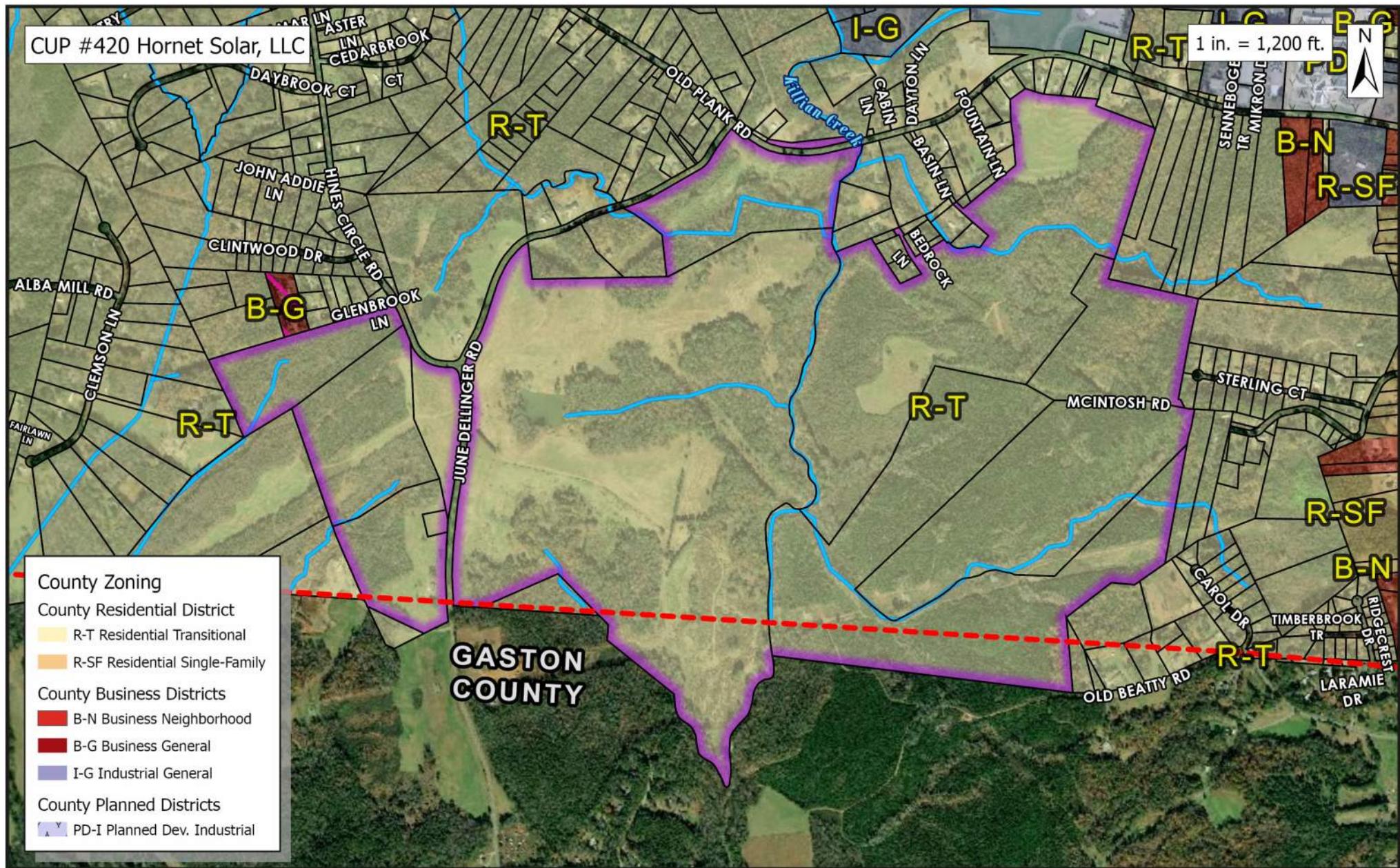
FACTUAL REASONS CITED: _____

4. The location and character of use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located and will be in general conformity with the Land Use Plan for the area in question. YES _____ NO _____

FACTUAL REASONS CITED: _____

After having held a Public Hearing on _____ and in light of the Findings of Facts listed herein, the following action was taken by the Lincoln County Planning Board:

In recommending such Conditional Use, the following conditions were recommended by the Lincoln County Planning Board:



Parcel ID# 29536, 33495, 33572, 33949,
34232, 54666, 55956, 57984, 57985 & 88482

- Property Location(s)

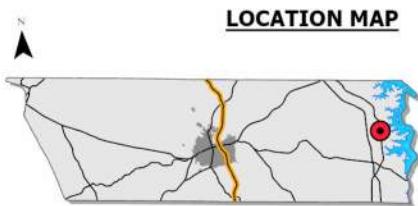
See Attached Application for Parcel Information

Property Location(s) Outlined in Purple.



Lincoln County
Planning & Inspections
115 W. Main St
3rd Floor
Lincolnton, NC 28092

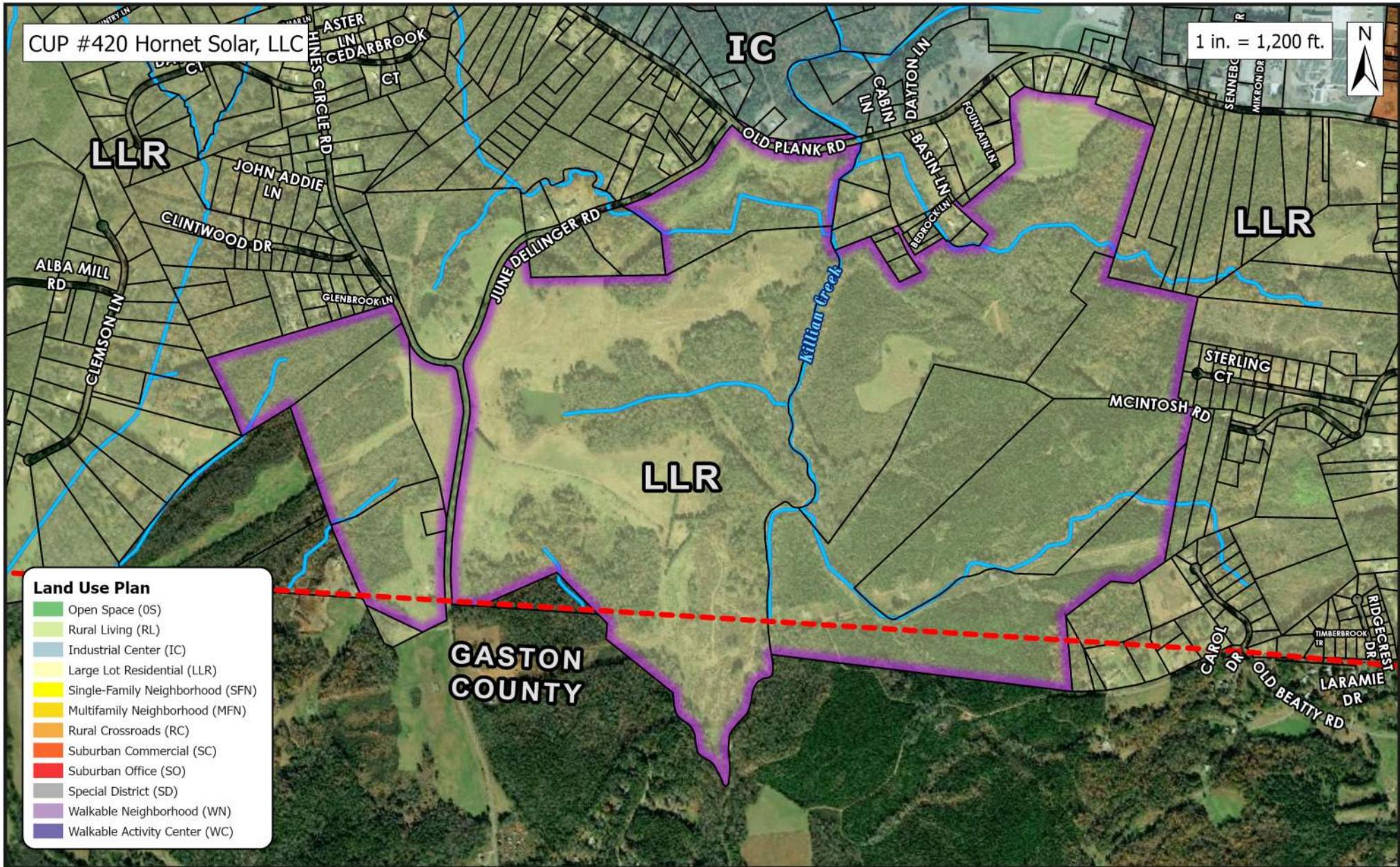
LOCATION MAP



Property Location(s)

CUP #420 Hornet Solar, LLC

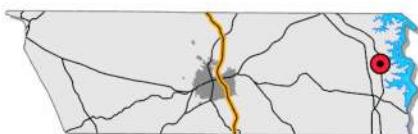
1 in. = 1,200 ft.



Parcel ID# 29536, 33495, 33572, 33949,
34232, 54666, 55956, 57984, 57985 & 88482



LOCATION MAP



- Property Location(s)

See Attached Application for Parcel Information

Property Location(s) Outlined in Purple.

Property Location(s)



Lincoln County
Planning & Inspections
115 W. Main St
3rd Floor
Lincolnton, NC 28092



Conditional Use Permit Application

Lincoln County Planning and Inspections Department
Zoning Administrator
302 N. Academy St., Suite A, Lincolnton, NC 28092
Phone: (704)736-8440 FAX: (704)732-9010

PART I

Applicant Name Hornet Solar, LLC

Applicant Address 148 Cobble Ridge Dr, Pittsboro, NC 27312

Applicant Phone Number 919-637-1139

Property Owner Name See attached table

Property Owner Address _____

Property Owner Phone Number _____

PART II

Property Location See attached table

Property ID (10 digits) _____ Property size _____

Parcel # (5 digits) _____ Deed Book(s) _____ Page(s) _____

PART III

Existing Zoning District See attached table

Briefly describe how the property is being used and any existing structures.
The properties are currently used primarily for pasture, agriculture, and forestry. There is also one rental home on one property and that may be removed, if necessary.

Briefly explain the proposed use and/or structure which would require a Conditional Use Permit

The applicant is seeking the Conditional Use Permit for the purposes of developing, constructing, and operating a utility-scale solar generating facility.

APPLICATION FEE (less than 2 acres \$250, 2+ acres \$500)
MUST BE RECEIVED BEFORE PROCESSING.

I hereby certify that all knowledge of the information provided for this application and attachments is true and correct to the best of my knowledge.

2/21/2020

Date _____

Hornet Solar Site Table									
Owner	Parcel	PIN	Acres	Deed Bk	Pg	County	Site Address	Current Use	Current Zoning
TMSMJ Properties LLC	57984	3691102082	31	1885	518	Lincoln	Hines Circle Rd	Agriculture / Pasture	R-T
TMSMJ Properties LLC	55956	3690185898	21	1885	518	Lincoln	2608 June Dellinger Rd	Rental Home	R-T
TMSMJ Properties LLC	33495	3690199220	1	1885	518	Lincoln	June Dellinger Rd	Agriculture / Pasture	R-T
LSMJ Properties LLC	57985	3691006601	20	5363	668	Lincoln	Hines Circle Rd	Agriculture / Pasture	R-T
LTJ Properties LLC	33949	3691305051	278	2363	672	Lincoln	2358 June Dellinger Rd	Agriculture / Pasture	R-T
LTJ Properties LLC	88482	3691616295	124	1885	514	Lincoln	Old Plank Rd	Agriculture / Pasture	R-T, ELDD
LTJ Properties LLC	33572	3691425135	32	1885	514	Lincoln	2053 June Dellinger Rd	Agriculture / Pasture	R-T, ELDD
LTJ Properties LLC	34232	3691801812	30	2831	485	Lincoln	6313 McIntosh Rd	Agriculture / Pasture	R-T
WEMALD LLC	54666	3690792473	63	1990	227	Lincoln	McIntosh Rd	Forestry	R-T
Thomas & Randall Beatty	29536	3690685980	108	2867	216	Lincoln	Old Beatty Rd	Forestry	R-T

2/27/20

To whom it may concern,

Hornet Solar is a ground-mounted utility-scale solar project that has been under development since early 2019. The project straddles the border of Lincoln and Gaston Counties, totaling over 1,100 acres. Of the total acreage, approximately 700 gross acres are in Lincoln County and will be leased from several different landowners.

The system will have a nameplate capacity of 75 megawatts (AC), with an annual output capable of providing power to approximately 14,500 homes. The facility will incorporate single-axis tracking technology, allowing the panels to track the sun from east to west throughout each day. This technology allows for greater generation per acre, compared to traditional fixed-tilt solar arrays. The expected operational life of this facility is 40 years, at which point the panels will be recycled or reused on a secondary market and the remaining equipment, comprised of primarily of commodity metals, will be removed and recycled.

The project is accessible from Old Lowesville & June Dellinger Roads and spans Killian Creek. We will, at all times, maintain a buffer of undisturbed vegetation adjoining the creek and its floodplain.

This project's expected total construction cost is approximately \$95,000,000 with approximately 63% of that taking place in Lincoln County, possibly in phases. Once in operation, the facility is expected to contribute over \$2,000,000 to the county's tax base over the course of the project's operational life.

Renewable Energy Services is a family-owned solar farm development company out of Pittsboro, North Carolina. We have been developing solar farms across the Carolinas since 2013 and have a track record of success.

The facility intends to obtain a long-term Power Purchase Agreement with Duke Energy Carolinas. In doing so, much of the energy produced would likely be consumed by customers in the Lincoln and Gaston County area.

Sincerely,



Matthew Delafield
COO

Hornet – Lincoln County CUP

Proposed Findings of Fact

1. The use will not materially endanger the public health or safety if located where proposed and developed according to plan:
 - a. When completed, the Hornet Solar facility will be built in accordance with the building codes of both North Carolina and Lincoln County, using UL approved equipment. The system will be built to the wind rating of the region. There will be a perimeter fence with three strands of barbed wire to secure the facility. Solar panels have been studied extensively by the EPA and the North Carolina State University Clean Energy Center and have been deemed landfill safe, due to the absence of hazardous materials. The EMF from the facilities has also been measured and has been deemed indistinguishable from Earth's magnetic fields at the project's fence line. The applicant believes the facility will not materially endanger the public health or safety.
2. Use meets all required conditions and specifications:
 - a. According to the Lincoln County UDO, solar farms are allowed with a Conditional Use permit in R-T zoning, which applies to all the parcels included in the Hornet Solar project. The site plan included with this application confirms the setbacks are in compliance with the County standards. The applicant believes the facility meets all required conditions and specifications.
3. The use will not substantially injure the value of adjoining or abutting property unless the use is a public necessity:
 - a. Impact Studies for similar facilities, conducted using the matched-pairs appraisal analysis technique, confirmed that there is no measurable difference in price or time on the market for properties adjoining a solar facility compared with similar properties not adjacent to solar farms. Solar facilities do not exhibit any typical public nuisance characteristics that would harm adjacent property values since they do not produce emissions, noise (after construction), glare, hazardous chemicals or significant traffic. The applicant believes the facility will not substantially injure the value of adjoining or abutting property.
4. The location and character of use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located and will be in general conformity with the Land Use Plan for the area in question:
 - a. The proposed location of the Hornet Solar facility, along Old Lowesville and June Dellinger roads, utilizes land in a more rural part of the County with no adjacent subdivisions and limited residences. There is a variety of existing utility infrastructure in the area, with the proposed facility location containing numerous natural gas rights-of-way and a natural gas substation, in addition to two large power line rights-of-way. The proposed facility shall be in harmony with its

surroundings and current uses as it is designed to provide ample space for fencing and buffering.

Hornet Solar

Lincoln Co - Distance to Airports

Legend

14.6 mi

18 mi

8.46 mi

Charlotte Douglas International Airport

Charlotte Douglas International Airport

Concord Regional Airport Departures & Arrivals

Concord-Padgett Regional Airport

Hornet Solar

Lincoln County Airport

Concord-Padgett Regional Airport

Concord Regional

Charlotte Douglas International Airport

Charlotte Douglas International Airport

Gastonia Municipal Airport

N

10 mi

Google Earth



My Cases in ACCEPTED Status

Please refer to the assigned ASN on all inquiries to the FAA

All Cases	Filter by Case Status	Cases Requiring Action
Show All Cases (3)	Draft (0) Accepted (3) Work in Progress (0) Interim (0) Determined (0) Circularized (0) Terminated (0)	Waiting (0) 7460-2 Required (0) Add Letter (0) Cases Due to Expire (0)

Records 1 to 3 of 3

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[View Folder ▾](#) [Create Folder](#) [Manage Folders](#) [Transfer Cases](#)
[Transfer Cases - Desk Reference Guide V_2018.2.0](#)

ASN	Folder Name	Project Name	Structure Name	Status	Date Accepted	Date Determined	7460-2 Received	City	State
<input type="checkbox"/> 2020-ASO-6667-OE		HORNE-000569275-20	Hornet Solar	Accepted	03/02/2020			Stanley	NC
<input type="checkbox"/> 2020-ASO-6668-OE		HORNE-000569275-20	Hornet Solar	Accepted	03/02/2020			Stanley	NC
<input type="checkbox"/> 2020-ASO-6669-OE		HORNE-000569275-20	Hornet Solar	Accepted	03/02/2020			Stanley	NC

[Move To ▾](#) [Archive](#)

Rows per Page: 20 ▾

Records 1 to 3 of 3

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Draft: Cases that have been saved by the user but have not been submitted to the FAA.

Waiting: Wind Turbine/Met Tower (w/WT Farm) cases that have not been submitted to the FAA and are waiting for an action from the user, either to verify the map or attach specific documents

Accepted: Cases that have been submitted to the FAA.

Add Letter: Cases that have been reviewed by the FAA and require additional information from the user.

Work in Progress: Cases that are being evaluated by the FAA.

Interim: Cases that have been reviewed by the FAA and require resolution from the user.

Determined: Cases that have a completed aeronautical study and an FAA determination.

Terminated: Cases that are no longer valid.

Please allow the FAA a minimum of 45 days to complete a study.

Case Transfer:

- Use the check box(es) to select the case(s) you want to transfer.
- Select the "Transfer Cases button" to open the "Manage Transfer Cases" screen.

Note: Drafts and cases in Add and Terminated status can not be transferred.

[Click here to contact the appropriate representative.](#)

Decommissioning Plan- Hornet Solar, LLC

Lincoln County Parcels: 57984, 55956, 33495, 57985, 33949, 88482, 33572, 34232, 54666, 29536

When the facility is abandoned or permanently ceases to produce energy for sale to the utility, the operator of the facility will do the following, at a minimum, to decommission the project.

1. The anticipated life of the solar facility is between 35-40 years.
2. The anticipated decommissioning process is as follows:
 - (a) Remove all non-utility owned equipment, structures, fencing, foundations, and conduiting, including equipment that may be buried below grade.
 - (b) Remove all graveled areas and access roads, if any, unless the owner of the leased property requests that they remain in place.
 - (c) Decommissioning shall be completed within three hundred and sixty-five (365) days of abandonment or the cessation of the solar facility's operation.
3. The operator of the facility is responsible for the decommissioning process and shall be responsible for all expenses to restore the property back to a condition similar to its state prior to the construction of the facility, as per the executed Ground Lease Agreements between each respective landlord and the tenant, Hornet Solar, LLC.
4. Within 30 days of the facility reaching Mechanical Completion, Hornet Solar, LLC will provide a decommissioning surety, in favor of the landlords, by either cash deposit in an escrow account, performance bond, irrevocable letter of credit, or other instrument readily convertible into cash at face value. Prior to issuing the surety, Hornet Solar shall obtain a decommissioning estimate, under seal, by a third-party engineer licensed in North Carolina. This decommissioning estimate shall include both the cost of decommissioning and removing the equipment, as well as the fair market salvage value of all of Hornet Solar's equipment. The value of the surety shall be 125% of the net decommissioning cost (cost of decommissioning less salvage value). In the event that the salvage value exceeds the cost of decommissioning, the surety value shall be \$25,000.

Hornet Solar, LLC

By: Matthew Delafield

Print Name: Matthew Delafield

Title: Authorized Person

Date: 2/21/2020



Kirkland Appraisals, LLC

Richard C. Kirkland, Jr., MAI
9408 Northfield Court
Raleigh, North Carolina 27603
Phone (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

March 11, 2020

Mr. Matt Delafield
Renewable Energy Services, LLC
540 Sanford Road, Unit C
Pittsboro, NC 27312

RE: Hornet Solar, LLC, Old Lowesville Road, Stanley, Lincoln/Gaston County, NC

Mr. Delafield

At your request, I have considered the impact of a proposed solar farm to be constructed on approximately 858.40 acres out of a parent tract assemblage of 1,499.50 acres located on Old Lowesville Road, Stanley, Lincoln/Gaston County, North Carolina. Specifically, I have been asked to give my professional opinion on whether the proposed solar farm will have any impact on adjoining property value and whether "the location and character of the use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located."

To form an opinion on these issues, I have researched and visited existing and proposed solar farms in North Carolina, researched articles through the Appraisal Institute and other studies, and discussed the likely impact with other real estate professionals. I have not been asked to assign any value to any specific property.

This letter is a limited report of a real property appraisal consulting assignment and subject to the limiting conditions attached to this letter. My client is Renewable Energy Services, LLC, represented to me by Matt Delafield. My findings support the SUP application. The effective date of this consultation is March 11, 2020.

Standards and Methodology

I conducted this analysis using the standards and practices established by the North Carolina Appraisal Board, the Appraisal Institute, and that conform to the Uniform Standards of Professional Appraisal Practice. The analyses and methodologies contained in this report are accepted by all major lending institutions, and they are used in North Carolina and across the country as the industry standard by certified appraisers conducting appraisals, market analyses, or impact studies and are considered adequate to form an opinion of the impact of a land use on neighboring properties. These standards and practices have also been accepted by the courts of North Carolina at the trial and appellate levels and by federal courts throughout the country as adequate to reach conclusions about the likely impact a use will have on adjoining or abutting properties.

The aforementioned standards compare property uses in the same market and generally within the same calendar year so that fluctuating markets do not alter study results. Although these standards do not require a linear study that examines adjoining property values before and after a new use (e.g. a solar farm) is developed, some of these studies do in fact employ this type of analysis. Comparative studies, as used in this report, are considered an industry standard.

Determining what is an External Obsolescence

An external obsolescence is a use of property that, because of its characteristics, might have a negative impact on the value of adjacent or nearby properties because of identifiable impacts. Determining whether a use would be considered an external obsolescence requires a study that isolates that use, eliminates any other causing factors, and then studies the sales of nearby versus distant comparable properties. The presence of one or a combination of key factors does not mean the use will be an external obsolescence, but a combination of these factors tend to be present when market data reflects that a use is an external obsolescence.

External obsolescence is evaluated by appraisers based on several factors. These factors include but are not limited to:

- 1) Traffic. Solar Farms are not traffic generators.
- 2) Odor. Solar farms do not produce odor.
- 3) Noise. Solar farms generate no noise concerns and are silent at night.
- 4) Environmental. Solar farms do not produce toxic or hazardous waste. NCDEQ does not consider the panels to be impervious surfaces that impede groundwater absorption or cause runoff.
- 5) Other factors. I have observed and studied many solar farms and have never observed any characteristic about such facilities that prevents or impedes neighbor from fully using their homes or farms or businesses for the use intended.

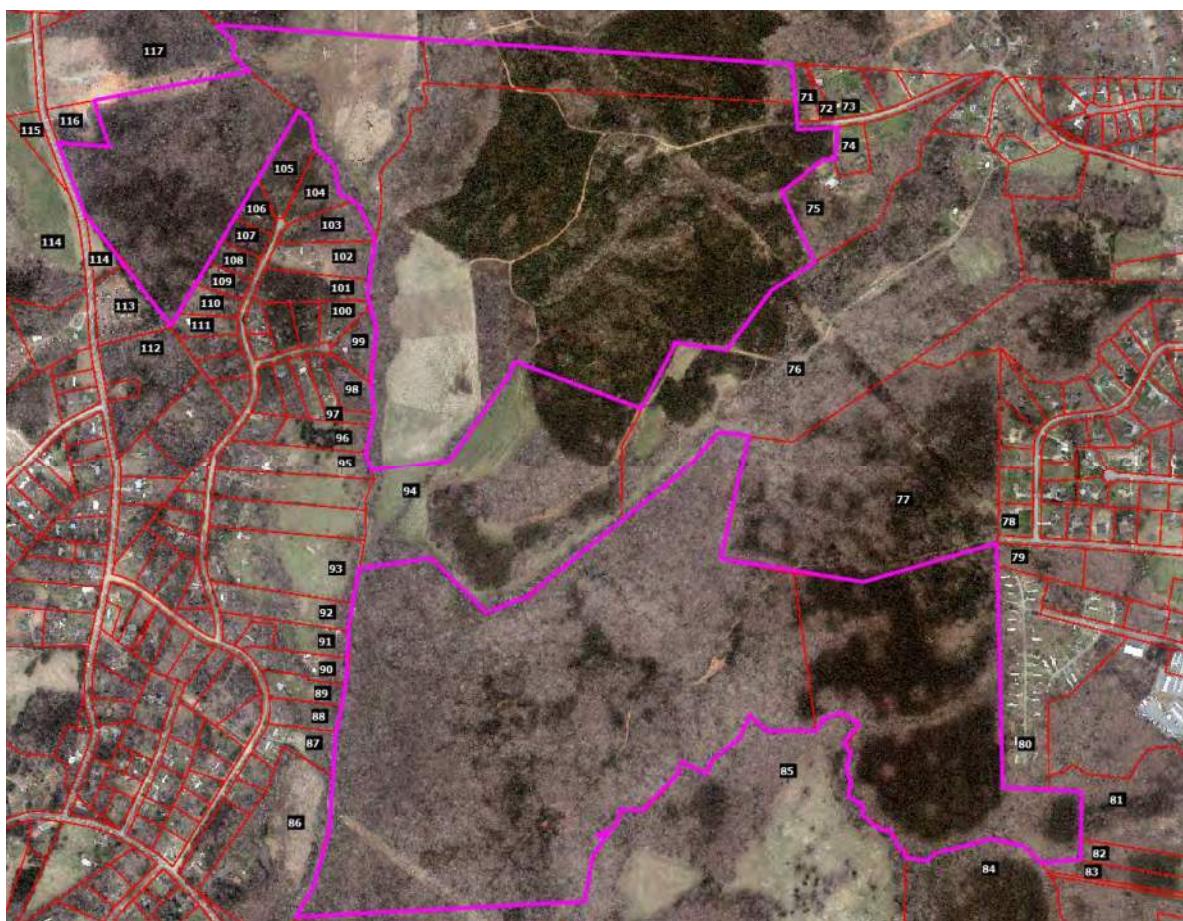
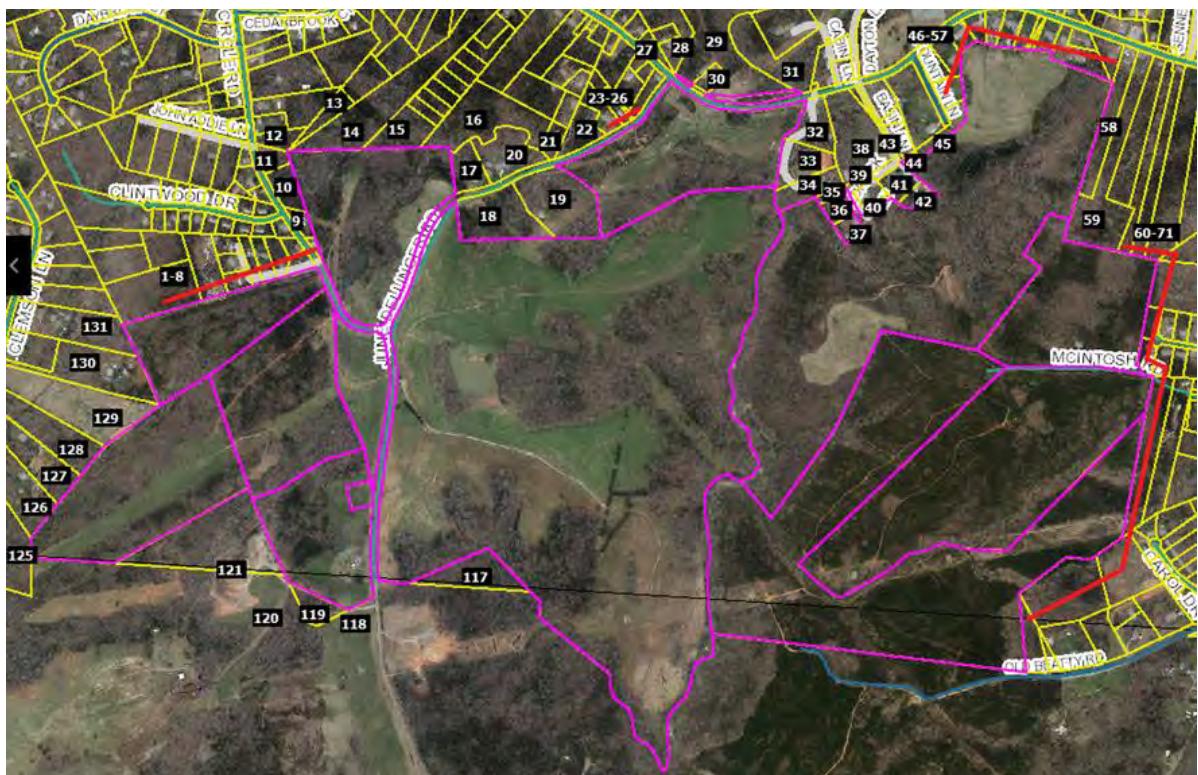
Proposed Use Description

The proposed solar farm is to be constructed on approximately 858.40 acres out of a parent tract assemblage of 1,499.50 acres located on Old Lowesville Road, Stanley, Lincoln/Gaston County, North Carolina. Adjoining land is primarily a mix of residential and agricultural uses in a rural area. There is an adjoining religious facility. I note that schools and churches are commonly located adjoining solar farms and one of the solar farms outlined later in this report is not only adjoining a religious facility, but is located on land owned by that church.

Adjoining Properties

I have considered adjoining uses and included a map to identify each parcel's location. The breakdown of those uses by acreage and number of parcels is summarized below.

Adjoining Use Breakdown		
	Acreage	Parcels
Residential	29.78%	80.92%
Agricultural	40.31%	12.98%
Agri/Res	23.31%	1.53%
Religious	0.25%	0.76%
Commercial	4.96%	3.05%
Warehouse	1.39%	0.76%
Total	100.00%	100.00%



Surrounding Uses

#	MAP ID	Owner	GIS Data		Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
			Acres	Present Use			
1	30968	Rendleman	8.54	Residential	0.63%	0.76%	N/A
2	30951	Rendleman	3.13	Commercial	0.23%	0.76%	N/A
3	55720	Rendleman	0.89	Residential	0.07%	0.76%	220
4	30965	Rendleman	0.93	Residential	0.07%	0.76%	365
5	30959	McDowell	1.11	Residential	0.08%	0.76%	310
6	81116	Coulibaly	1.09	Residential	0.08%	0.76%	150
7	30958	Rendleman	0.76	Residential	0.06%	0.76%	135
8	30951	Rendleman	0.22	Residential	0.02%	0.76%	300
9	55438	LTJ Prop	0.78	Residential	0.06%	0.76%	485
10	51687	Able	1.87	Residential	0.14%	0.76%	N/A
11	33547	Burch	1.52	Residential	0.11%	0.76%	N/A
12	91271	Benson	2.62	Residential	0.19%	0.76%	N/A
13	31271	Walls	1.46	Residential	0.11%	0.76%	N/A
14	31568	Benson	11.97	Residential	0.88%	0.76%	N/A
15	87299	Sanders	3.12	Residential	0.23%	0.76%	N/A
16	32646	Patterson	7.83	Residential	0.58%	0.76%	N/A
17	58019	Woolwine	2.30	Residential	0.17%	0.76%	675
18	42415	Woolwine	6.57	Residential	0.48%	0.76%	N/A
19	75933	Woolwine	7.45	Residential	0.55%	0.76%	335
20	32027	Willoughby	4.21	Residential	0.31%	0.76%	780
21	33950	Hopper	1.02	Residential	0.08%	0.76%	880
22	32876	Tate	2.30	Residential	0.17%	0.76%	760
23	31585	Tucker	1.51	Residential	0.11%	0.76%	680
24	30821	Whitener	0.66	Residential	0.05%	0.76%	730
25	31884	Whitener	0.65	Residential	0.05%	0.76%	N/A
26	29815	Daniels	1.02	Residential	0.08%	0.76%	1,010
27	31537	McLean	0.78	Residential	0.06%	0.76%	1,280
28	31581	McLain	0.67	Residential	0.05%	0.76%	1,265
29	57933	Morrison	13.00	Residential	0.96%	0.76%	N/A
30	59113	Piedmont Gas	0.86	Commercial	0.06%	0.76%	N/A
31	29761	Dellinger	12.46	Residential	0.92%	0.76%	N/A
32	54928	Cooke	2.85	Residential	0.21%	0.76%	775
33	31463	Alexander	3.14	Residential	0.23%	0.76%	N/A
34	52785	Dellinger	2.56	Residential	0.19%	0.76%	400
35	57171	Dellinger	0.22	Residential	0.02%	0.76%	N/A
36	55908	Dellinger	1.03	Residential	0.08%	0.76%	280
37	57170	Nivens	0.98	Residential	0.07%	0.76%	215
38	70041	Seigler	6.78	Residential	0.50%	0.76%	495
39	51245	Seigler	0.39	Residential	0.03%	0.76%	N/A

#	MAP ID	Owner	GIS Data		Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
			Acres	Present Use			
40	55907	Simms	0.56	Residential	0.04%	0.76%	180
41	29631	Dellinger	1.61	Residential	0.12%	0.76%	380
42	51246	Lineberger	1.04	Residential	0.08%	0.76%	325
43	30161	Dellinger	1.06	Residential	0.08%	0.76%	530
44	51247	Dellinger	0.21	Residential	0.02%	0.76%	N/A
45	29591	Cooke	1.41	Residential	0.10%	0.76%	N/A
46	72029	Gore	1.22	Residential	0.09%	0.76%	230
47	88481	Dellinger	1.34	Residential	0.10%	0.76%	270
48	2290	Dellinger	0.89	Residential	0.07%	0.76%	405
49	31497	Rudsill	0.84	Residential	0.06%	0.76%	430
50	33401	Roberts	0.96	Residential	0.07%	0.76%	420
51	30252	Dellinger	1.25	Residential	0.09%	0.76%	430
52	29786	Dellinger	0.87	Residential	0.06%	0.76%	320
53	88735	Dellinger	0.26	Residential	0.02%	0.76%	N/A
54	57172	Dellinger	0.17	Residential	0.01%	0.76%	N/A
55	29754	Duckworth	1.00	Agricultural	0.07%	0.76%	375
56	53172	Cooke	2.36	Residential	0.17%	0.76%	325
57	34243	Moore	1.31	Residential	0.10%	0.76%	395
58	77254	Fisher	3.96	Residential	0.29%	0.76%	500
59	50526	Lowery	8.65	Residential	0.64%	0.76%	625
60	29888	Bailey	3.82	Residential	0.28%	0.76%	N/A
61	30988	Phillips	4.03	Residential	0.30%	0.76%	N/A
62	34342	TMSML LLC	8.01	Agricultural	0.59%	0.76%	N/A
63	34255	LTJ Prop	13.54	Residential	1.00%	0.76%	N/A
64	100178	Lyerly	20.02	Agricultural	1.47%	0.76%	N/A
65	76949	Warner	0.79	Residential	0.06%	0.76%	175
66	76950	Viers	0.92	Residential	0.07%	0.76%	160
67	76951	Puett	0.92	Residential	0.07%	0.76%	195
68	30247	An derson	5.18	Residential	0.38%	0.76%	N/A
69	34655	Stanley	4.81	Residential	0.35%	0.76%	N/A
70	78607	Harris	7.31	Residential	0.54%	0.76%	N/A
71	29563	Beatty	1.95	Residential	0.14%	0.76%	260
72	34656	Harris	0.48	Residential	0.04%	0.76%	N/A
73	211901	Harris	3.22	Residential	0.24%	0.76%	500
74	172665	Whitley	1.90	Residential	0.14%	0.76%	430
75	172666	Whitley	14.13	Residential	1.04%	0.76%	N/A
76	217960	Harris	74.41	Agricultural	5.48%	0.76%	N/A
77	172756	BV Gravel	58.54	Commercial	4.31%	0.76%	N/A
78	172855	Holden	1.42	Residential	0.10%	0.76%	420
79	172859	Castanea	3.38	Religious	0.25%	0.76%	N/A
80	172871	Woodbridge	17.77	Residential	1.31%	0.76%	110

#	MAP ID	Owner	GIS Data		Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
			Acres	Present Use			
81	222609	Wallace Rent	18.85	Warehouse	1.39%	0.76%	N/A
82	173514	Everhart	3.92	Residential	0.29%	0.76%	1,755
83	173515	Everhart	28.58	Agri/Res	2.10%	0.76%	1,750
84	201633	Rozzelle	28.58	Agricultural	2.10%	0.76%	N/A
85	173348	Clonninger	87.14	Agricultural	6.41%	0.76%	N/A
86	173408	King	18.07	Residential	1.33%	0.76%	995
87	173407	Keistler	3.27	Residential	0.24%	0.76%	990
88	173436	Godwin	2.36	Residential	0.17%	0.76%	955
89	173437	Williams	2.39	Agricultural	0.18%	0.76%	840
90	173438	Ellis	2.96	Residential	0.22%	0.76%	925
91	172968	Alexander	3.65	Agricultural	0.27%	0.76%	1,070
92	172970	Keziah	4.95	Residential	0.36%	0.76%	1,170
93	172972	Thayer	11.39	Residential	0.84%	0.76%	1,215
94	173021	Harris	51.61	Agricultural	3.80%	0.76%	N/A
95	172975	Ferrel	5.84	Residential	0.43%	0.76%	1,450
96	173018	Ferrel	3.28	Residential	0.24%	0.76%	N/A
97	172981	Hudson	1.92	Agricultural	0.14%	0.76%	1,415
98	172982	Wheeler	2.20	Residential	0.16%	0.76%	1,340
99	172983	New Heirs	2.24	Residential	0.16%	0.76%	1,185
100	172985	Doss	1.90	Residential	0.14%	0.76%	1,160
101	172991	Dean	3.84	Residential	0.28%	0.76%	N/A
102	172992	Briggs	4.13	Residential	0.30%	0.76%	785
103	172993	Fullerton	3.28	Residential	0.24%	0.76%	505
104	172994	Fullerton	3.09	Agricultural	0.23%	0.76%	N/A
105	172995	Fuller	3.93	Residential	0.29%	0.76%	215
106	172996	Murphy	1.42	Residential	0.10%	0.76%	220
107	172997	Scull	1.37	Residential	0.10%	0.76%	240
108	172998	Thomas	1.33	Residential	0.10%	0.76%	260
109	172999	Jennings	1.42	Residential	0.10%	0.76%	185
110	173000	Garrett	1.67	Agricultural	0.12%	0.76%	205
111	173001	Rice	1.66	Residential	0.12%	0.76%	180
112	172935	Murphy	8.87	Residential	0.65%	0.76%	N/A
113	302163	Cox	4.82	Commercial	0.35%	0.76%	N/A
114	173023	Killian	121.38	Agricultural	8.93%	0.76%	N/A
115	172643	Killian	1.69	Residential	0.12%	0.76%	N/A
116	222965	Edwards	2.56	Residential	0.19%	0.76%	275
117	172642	Martin	21.56	Agricultural	1.59%	0.76%	N/A
118	172644	Martin	5.22	Residential	0.38%	0.76%	N/A
119	73073	Martin	1.81	Residential	0.13%	0.76%	N/A
120	207154	Killian	39.21	Agricultural	2.89%	0.76%	N/A

#	MAP ID	Owner	GIS Data		Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
			Acres	Present Use			
121	207157	Martin	52.54	Agricultural	3.87%	0.76%	N/A
122	173066	Clonninger	288.18	Agri/Res	21.21%	0.76%	4,285
123	221565	Clonninger	29.54	Agricultural	2.17%	0.76%	N/A
124	33171	Smith	12.75	Residential	0.94%	0.76%	1,355
125	M1686	Van Dyke	15.30	Residential	1.13%	0.76%	1,180
126	33991	Helms	7.53	Residential	0.55%	0.76%	335
127	29603	Beard	5.46	Residential	0.40%	0.76%	650
128	32407	Bradford	5.89	Residential	0.43%	0.76%	985
129	2679	Richardsom	9.62	Residential	0.71%	0.76%	340
130	30764	Ramsey	7.20	Residential	0.53%	0.76%	540
131	33992	Houser	6.57	Residential	0.48%	0.76%	1,190
Total			1358.711		100.00%	100.00%	663

I. Market Analysis of the Impact on Value from Solar Farms

I have researched hundreds of solar farms in numerous states to determine the impact of these facilities on the value of adjoining property. This research has primarily been in North Carolina, but I have also conducted market impact analyses in Virginia, South Carolina, Tennessee, Texas, Oregon, Mississippi, Maryland, New York, California, Missouri, Florida, Montana, Georgia, Kentucky and New Jersey.

I have included a subset of matched pairs on the following pages that highlight NC solar farms with a few from neighboring states. There are numerous additional supplemental matched pairs from other states that I could cite as well.

Wherever I have looked at solar farms, I have derived a breakdown of the adjoining uses to show what adjoining uses are typical for solar farms and what uses would likely be considered consistent with a solar farm use similar to the breakdown that I've shown for the subject property on the previous page. A summary showing the results of compiling that data over hundreds of solar farms is shown later in the Harmony of Use section of this report.

I also consider whether the properties adjoining a solar farm in one location have characteristics similar to the properties abutting or adjoining the proposed site so that I can make an assessment of market impact on each proposed site. Notably, in most cases solar farms are placed in areas very similar to the site in question, which is surrounded by low density residential and agricultural uses. In my over 600 studies, I have found a striking repetition of that same typical adjoining use mix in over 90% of the solar farms I have looked at. Matched pair results in multiple states are strikingly similar, and all indicate that solar farms – which generate very little traffic, and do not generate noise, dust or have other harmful effects – do not negatively impact the value of adjoining or abutting properties.

1. Matched Pair – AM Best Solar Farm, Goldsboro, NC

This solar farm adjoins Spring Garden Subdivision which had new homes and lots available for new construction during the approval and construction of the solar farm. The recent home sales have ranged from \$200,000 to \$250,000. This subdivision sold out the last homes in late 2014. The solar farm is clearly visible particularly along the north end of this street where there is only a thin line of trees separating the solar farm from the single-family homes.

Homes backing up to the solar farm are selling at the same price for the same floor plan as the homes that do not back up to the solar farm in this subdivision. According to the builder, the solar farm has been a complete non-factor. Not only do the sales show no difference in the price paid for the various homes adjoining the solar farm versus not adjoining the solar farm, but there are actually more recent sales along the solar farm than not. There is no impact on the sellout rate, or time to sell for the homes adjoining the solar farm.

I spoke with a number of owners who adjoin the solar farm and none of them expressed any concern over the solar farm impacting their property value.

The data presented on the following page shows multiple homes that have sold in 2013 and 2014 adjoining the solar farm at prices similar to those not along the solar farm. These series of sales indicate that the solar farm has no impact on the adjoining residential use.

The homes that were marketed at Spring Garden are shown below.



<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> Americana SqFt: 3,194 Bed / Bath: 3 / 3.5 </div> </div> <div style="margin-top: 10px;"> Price: \$237,900 </div> <div style="background-color: #005a99; color: white; padding: 2px 10px; border-radius: 5px; text-decoration: none; font-weight: bold;"> View Now » </div>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> Washington SqFt: 3,292 Bed / Bath: 4 / 3.5 </div> </div> <div style="margin-top: 10px;"> Price: \$244,900 </div> <div style="background-color: #005a99; color: white; padding: 2px 10px; border-radius: 5px; text-decoration: none; font-weight: bold;"> View Now » </div>
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> Presidential SqFt: 3,400 Bed / Bath: 5 / 3.5 </div> </div> <div style="margin-top: 10px;"> Price: \$247,900 </div> <div style="background-color: #005a99; color: white; padding: 2px 10px; border-radius: 5px; text-decoration: none; font-weight: bold;"> View Now » </div>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> Kennedy SqFt: 3,494 Bed / Bath: 5 / 3 </div> </div> <div style="margin-top: 10px;"> Price: \$249,900 </div> <div style="background-color: #005a99; color: white; padding: 2px 10px; border-radius: 5px; text-decoration: none; font-weight: bold;"> View Now » </div>
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> Virginia SqFt: 3,449 Bed / Bath: 5 / 3 </div> </div> <div style="margin-top: 10px;"> Price: \$259,900 </div> <div style="background-color: #005a99; color: white; padding: 2px 10px; border-radius: 5px; text-decoration: none; font-weight: bold;"> View Now » </div>	

Adjoining Sales After Solar Farm Completed

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600195570	Helm	0.76	Sep-13	\$250,000	2013	3,292	\$75.94	2 Story
3600195361	Leak	1.49	Sep-13	\$260,000	2013	3,652	\$71.19	2 Story
3600199891	McBrayer	2.24	Jul-14	\$250,000	2014	3,292	\$75.94	2 Story
3600198632	Foresman	1.13	Aug-14	\$253,000	2014	3,400	\$74.41	2 Story
3600196656	Hinson	0.75	Dec-13	\$255,000	2013	3,453	\$73.85	2 Story
Average		1.27		\$253,600	2013.4	3,418	\$74.27	
Median		1.13		\$253,000	2013	3,400	\$74.41	

Adjoining Sales After Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
0	Feddersen	1.56	Feb-13	\$247,000	2012	3,427	\$72.07	Ranch
0	Gentry	1.42	Apr-13	\$245,000	2013	3,400	\$72.06	2 Story
Average		1.49		\$246,000	2012.5	3,414	\$72.07	
Median		1.49		\$246,000	2012.5	3,414	\$72.07	

Adjoining Sales Before Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600183905	Carter	1.57	Dec-12	\$240,000	2012	3,347	\$71.71	1.5 Story
3600193097	Kelly	1.61	Sep-12	\$198,000	2012	2,532	\$78.20	2 Story
3600194189	Hadwan	1.55	Nov-12	\$240,000	2012	3,433	\$69.91	1.5 Story
Average		1.59		\$219,000	2012	2,940	\$74.95	
Median		1.59		\$219,000	2012	2,940	\$74.95	

Nearby Sales After Solar Farm Completed

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600193710	Barnes	1.12	Oct-13	\$248,000	2013	3,400	\$72.94	2 Story
3601105180	Nackley	0.95	Dec-13	\$253,000	2013	3,400	\$74.41	2 Story
3600192528	Mattheis	1.12	Oct-13	\$238,000	2013	3,194	\$74.51	2 Story
3600198928	Beckman	0.93	Mar-14	\$250,000	2014	3,292	\$75.94	2 Story
3600196965	Hough	0.81	Jun-14	\$224,000	2014	2,434	\$92.03	2 Story
3600193914	Preskitt	0.67	Jun-14	\$242,000	2014	2,825	\$85.66	2 Story
3600194813	Bordner	0.91	Apr-14	\$258,000	2014	3,511	\$73.48	2 Story
3601104147	Shaffer	0.73	Apr-14	\$255,000	2014	3,453	\$73.85	2 Story
Average		0.91		\$246,000	2013.625	3,189	\$77.85	
Median		0.92		\$249,000	2014	3,346	\$74.46	

Nearby Sales Before Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600191437	Thomas	1.12	Sep-12	\$225,000	2012	3,276	\$68.68	2 Story
3600087968	Lilley	1.15	Jan-13	\$238,000	2012	3,421	\$69.57	1.5 Story
3600087654	Burke	1.26	Sep-12	\$240,000	2012	3,543	\$67.74	2 Story
3600088796	Hobbs	0.73	Sep-12	\$228,000	2012	3,254	\$70.07	2 Story
Average		1.07		\$232,750	2012	3,374	\$69.01	
Median		1.14		\$233,000	2012	3,349	\$69.13	

Matched Pair Summary

	Adjoins Solar Farm		Nearby Solar Farm	
	Average	Median	Average	Median
Sales Price	\$253,600	\$253,000	\$246,000	\$249,000
Year Built	2013	2013	2014	2014
Size	3,418	3,400	3,189	3,346
Price /SF	\$74.27	\$74.41	\$77.85	\$74.46

Percentage Differences

Median Price	-2%
Median Size	-2%
Median Price /SF	0%

The data shown above was compiled in 2014 and showed that initial purchase prices for homes adjoining the solar farm were not impacted by the solar farm.

The Median Price is the best indicator to follow in any analysis as it avoids outlying samples that would otherwise skew the results. The median sizes and median prices are all consistent throughout the sales both before and after the solar farm whether you look at sites adjoining or nearby to the solar farm. The average for the homes nearby the solar farm shows a smaller building size and a higher price per square foot. This reflects a common occurrence in real estate where the price per square foot goes up as the size goes down. This is similar to the discount you see in any market where there is a discount for buying larger volumes. So when you buy a 2 liter coke you pay less per ounce than if you buy a 16 oz. coke. So even comparing averages the indication is for no impact, but I rely on the median rates as the most reliable indication for any such analysis.

I have also considered four more recent resales of homes in this community as shown on the following page. These comparable sales adjoin the solar farm at distances ranging from 315 to 400 feet. The matched pairs show a range from -9% to +6%. The range of the average difference is -2% to +1% with an average of 0% and a median of +0.5%. These comparable sales support a finding of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	103 Granville Pl	1.42	7/27/2018	\$265,000	2013	3,292	\$80.50	4/3.5	2-Car	2-Story		385
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		
Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg	% Diff	
	Adjoins	103 Granville Pl							\$265,000				
	Not	2219 Granville	\$4,382		\$1,300	\$0			\$265,682	0%			
	Not	634 Friendly	-\$8,303		-\$6,675	\$16,721	-\$10,000		\$258,744	2%			
	Not	2403 Granville	-\$6,029		-\$1,325	\$31,356			\$289,001	-9%			

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	104 Erin	2.24	6/19/2017	\$280,000	2014	3,549	\$78.90	5/3.5	2-Car	2-Story		315
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		

Adjoining Residential Sales After Solar Farm Approved

Neighboring Residential Sales After Solar Farm Approved													
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	2312 Granville	0.75	5/1/2018	\$284,900	2013	3,453	\$82.51	5/3.5	2-Car	2-Story		400
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		

Adjoining Residential Sales After Solar Farm Approved

Neighboring Residential Sales After Solar Panel Approved													
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	2310 Granville	0.76	5/14/2019	\$280,000	2013	3,292	\$85.05	5/3.5	2-Car	2-Story		400
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		

I have also considered the original sales prices in this subdivision relative to the recent resale values as shown in the chart below. This rate of appreciation is right at 2.5% over the last 6 years. Zillow indicates that the average home value within the 27530 zip code as of January 2014 was \$101,300 and as of January 2020 that average is \$118,100. This indicates an average increase in the market of 2.37%. I conclude that the appreciation of the homes adjoining the solar farm are not impacted by the presence of the solar farm based on this data.

Address	Initial Sale		Second Sale		Year		% Apprec.	% /Year
	Date	Price	Date	Price	Diff	Apprec.		
1 103 Granville Pl	4/1/2013	\$245,000	7/27/2018	\$265,000	5.32	\$20,000	8.16%	1.53%
2 105 Erin	7/1/2014	\$250,000	6/19/2017	\$280,000	2.97	\$30,000	12.00%	4.04%
3 2312 Granville	12/1/2013	\$255,000	5/1/2015	\$262,000	1.41	\$7,000	2.75%	1.94%
4 2312 Granville	5/1/2015	\$262,000	5/1/2018	\$284,900	3.00	\$22,900	8.74%	2.91%
5 2310 Granville	8/1/2013	\$250,000	5/14/2019	\$280,000	5.79	\$30,000	12.00%	2.07%
6 2308 Granville	9/1/2013	\$260,000	11/12/2015	\$267,500	2.20	\$7,500	2.88%	1.31%
7 2304 Granville	9/1/2012	\$198,000	6/1/2017	\$225,000	4.75	\$27,000	13.64%	2.87%
8 102 Erin	8/1/2014	\$253,000	11/1/2016	\$270,000	2.25	\$17,000	6.72%	2.98%
							Average	2.46%
							Median	2.47%

2. Matched Pair – White Cross Solar Farm, Chapel Hill, NC



A new solar farm was built at 2159 White Cross Road in Chapel Hill, Orange County in 2013. After construction, the owner of the underlying land sold the balance of the tract not encumbered by the solar farm in July 2013 for \$265,000 for 47.20 acres, or \$5,606 per acre. This land adjoins the solar farm to the south and was clear cut of timber around 10 years ago. I compared this purchase to a nearby transfer of 59.09 acres of timber land just south along White Cross Road that sold in November 2010 for \$361,000, or \$6,109 per acre. After purchase, this land was divided into three mini farm tracts of 12 to 20 acres each. These rates are very similar and the difference in price per acre is attributed to the timber value and not any impact of the solar farm.

Type	TAX ID	Owner	Acres	Date	Price	\$/Acre	Notes	Conf By
Adjoins Solar	9748336770	Haggerty	47.20	Jul-13	\$265,000	\$5,614	Clear cut	Betty Cross, broker
Not Near Solar	9747184527	Purcell	59.09	Nov-10	\$361,000	\$6,109	Wooded	Dickie Andrews, broker

The difference in price is attributed to the trees on the older sale.

No impact noted for the adjacency to a solar farm according to the broker.

I looked at a number of other nearby land sales without proximity to a solar farm for this matched pair, but this land sale required the least allowance for differences in size, utility and location.

Matched Pair Summary

	Adjoins Solar Farm		Nearby Solar Farm	
	Average	Median	Average	Median
Sales Price	\$5,614	\$5,614	\$6,109	\$6,109
Adjustment for Timber	\$500	\$500		
Adjusted	\$6,114	\$6,114	\$6,109	\$6,109
Tract Size	47.20	47.20	59.09	59.09

Percentage Differences

Median Price Per Acre	0%
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This matched pair again supports the conclusion that adjacency to a solar farm has no impact on adjoining residential/agricultural land.

3. Matched Pair – Wagstaff Farm, Roxboro, NC



This solar farm is located at the northeast corner of a 594-acre farm with approximately 30 acres of solar farm area. This solar farm was approved and constructed in 2013.

After approval, 18.82 acres were sold out of the parent tract to an adjoining owner to the south. This sale was at a similar price to nearby land to the east that sold in the same time from for the same price per acre as shown below.

Type	TAX ID	Owner	Acres	Present Use	Date Sold	Price	\$/AC
Adjoins Solar	0918-17-11-7960	Piedmont	18.82	Agricultural	8/19/2013	\$164,000	\$8,714
Not Near Solar	0918-00-75-9812 et al	Blackwell	14.88	Agricultural	12/27/2013	\$130,000	\$8,739

Matched Pair Summary

	Adjoins Solar Farm		Nearby Solar Farm	
	Average	Median	Average	Median
Sales Price	\$8,714	\$8,714	\$8,739	\$8,739
Tract Size	18.82	18.82	14.88	14.88

Percentage Differences

Median Price Per Acre 0%

This matched pair again supports the conclusion that adjacency to a solar farm has no impact on adjoining residential/agricultural land.

4. Matched Pair – Neal Hawkins Solar, Gastonia, NC



This project is located on the south side of Neal Hawkins Road just outside of Gastonia. The property identified above as Parcel 4 was listed for sale while this solar farm project was going through the approval process. The property was put under contract during the permitting process with the permit being approved while the due diligence period was still ongoing. After the permit was approved the property closed with no concerns from the buyer. I spoke with Jennifer Bouvier, the broker listing the property and she indicated that the solar farm had no impact at all on the sales price. She considered some nearby sales to set the price and the closing price was very similar to the asking price within the typical range for the market. The buyer was aware that the solar farm was coming and they had no concerns.

This two-story brick dwelling was sold on March 20, 2017 for \$270,000 for a 3,437 square foot dwelling built in 1934 in average condition on 1.42 acres. The property has four bedrooms and two bathrooms.

I note that Parcel 7 in the map above is an adjoining church. This church is also the owner of the land that is leased to the solar farm shown above.

5. Matched Pair – Summit Solar, Moyock, NC



This project is located at 1374 Caritoke Highway, Moyock, NC. This is an 80 MW facility on a parent tract of 2,034 acres. Parcels Number 48 and 53 as shown in the map above were sold in 2016. The project was under construction during the time period of the first of the matched pair sales and the permit was approved well prior to that in 2015.

I looked at multiple sales of adjoining and nearby homes and compared each to multiple comparables to show a range of impacts from -10% up to +11% with an average of +2% and a median of +3%. These ranges are well within typical real estate variation and supports an indication of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved													
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
48	Adjoins	129 Pinto	4.29	4/15/2016	\$170,000	1985	1,559	\$109.04	3/2	Drive	MFG		1,060
	Not	102 Timber	1.30	4/1/2016	\$175,500	2009	1,352	\$129.81	3/2	Drive	MFG		
	Not	120 Ranchland	0.99	10/1/2014	\$170,000	2002	1,501	\$113.26	3/2	Drive	MFG		
Avg													
Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff		
Adjoins	129 Pinto								\$170,000			-3%	
Not	102 Timber	\$276		\$10,000	-\$29,484	\$18,809			\$175,101			-3%	
Not	120 Ranchland	\$10,735		\$10,000	-\$20,230	\$4,598			\$175,103			-3%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
53	Adjoins	105 Pinto	4.99	12/16/2016	\$206,000	1978	1,484	\$138.81	3/2	Det Gar	Ranch		2,020
	Not	111 Spur	1.15	2/1/2016	\$193,000	1985	2,013	\$95.88	4/2	Gar	Ranch		
	Not	103 Marshall	1.07	3/29/2017	\$196,000	2003	1,620	\$120.99	3/2	Drive	Ranch		
	Not	127 Ranchland	0.99	6/9/2015	\$219,900	1988	1,910	\$115.13	3/2	Gar/3Gar	Ranch		

Avg
% Diff

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg	% Diff
Adjoins	105 Pinto								\$206,000	11%		
Not	111 Spur	\$6,918	\$10,000	-\$6,755	-\$25,359				\$177,803	14%		
Not	103 Marshall	-\$2,268	\$10,000	-\$24,500	-\$8,227				\$176,005	15%		
Not	127 Ranchland	\$13,738	\$10,000	-\$10,995	-\$24,523				\$198,120	4%		

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
15	Adjoins	318 Green View	0.44	9/15/2019	\$357,000	2005	3,460	\$103.18	4/4	2-Car	1.5 Brick		570
	Not	195 St Andrews	0.55	6/17/2018	\$314,000	2002	3,561	\$88.18	5/3	2-Car	2.0 Brick		
	Not	336 Green View	0.64	1/13/2019	\$365,000	2006	3,790	\$96.31	6/4	3-Car	2.0 Brick		
	Not	275 Green View	0.36	8/15/2019	\$312,000	2003	3,100	\$100.65	5/3	2-Car	2.0 Brick		

Avg
% Diff

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg	% Diff
Adjoins	318 Green View								\$357,000	4%		
Not	195 St Andrews	\$12,040			\$4,710	-\$7,125	\$10,000		\$333,625	7%		
Not	336 Green View	\$7,536			-\$1,825	-\$25,425			-\$5,000	\$340,286	5%	
Not	275 Green View	\$815			\$3,120	\$28,986	\$10,000			\$354,921	1%	

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
29	Adjoins	164 Ranchland	1.01	4/30/2019	\$169,000	1999	2,052	\$82.36	4/2	Gar	MFG		440
	Not	150 Pinto	0.94	3/27/2018	\$168,000	2017	1,920	\$87.50	4/2	Drive	MFG		
	Not	105 Longhorn	1.90	10/10/2017	\$184,500	2002	1,944	\$94.91	3/2	Drive	MFG		
	Not	112 Pinto	1.00	7/27/2018	\$180,000	2002	1,836	\$98.04	3/2	Drive	MFG	Fenced	

Avg
% Diff

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg	% Diff
Adjoins	164 Ranchland								\$169,000	-10%		
Not	150 Pinto	\$5,649			-\$21,168	\$8,085			\$5,000	\$165,566	2%	
Not	105 Longhorn	\$8,816	-\$10,000		-\$3,875	\$7,175			\$5,000	\$191,616	-13%	
Not	112 Pinto	\$4,202			-\$3,780	\$14,824			\$5,000	\$200,245	-18%	

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	358 Oxford	10.03	9/16/2019	\$478,000	2008	2,726	\$175.35	3/3	2 Gar	Ranch		635
	Not	276 Summit	10.01	12/20/2017	\$355,000	2006	1,985	\$178.84	3/2	2 Gar	Ranch		
	Not	176 Providence	6.19	5/6/2019	\$425,000	1990	2,549	\$166.73	3/3	4 Gar	Ranch	Brick	
	Not	1601 B Caratoke	12.20	9/26/2019	\$440,000	2016	3,100	\$141.94	4/3.5	5 Gar	Ranch	Pool	

Avg
% Diff

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg	% Diff	
Adjoins	358 Oxford								\$478,000	5%			
Not	276 Summit	\$18,996			\$3,550	\$106,017	\$10,000			\$493,564	-3%		
Not	176 Providence	\$4,763			\$38,250	\$23,609			-\$10,000	-\$25,000	\$456,623	4%	
Not	1601 B Caratoke	-\$371	\$50,000		-\$17,600	-\$42,467	-\$5,000	-\$10,000			\$414,562	13%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Nearby	343 Oxford	10.01	3/9/2017	\$490,000	2016	3,753	\$130.56	3/3	2 Gar	1.5 Story	Pool	970
	Not	287 Oxford	10.01	9/4/2017	\$600,000	2013	4,341	\$138.22	5/4.5	8-Gar	1.5 Story	Pool	
	Not	301 Oxford	10.00	4/23/2018	\$434,000	2013	3,393	\$127.91	5/3	2 Gar	1.5 Story		
	Not	218 Oxford	10.01	4/4/2017	\$525,000	2006	4,215	\$124.56	4/3	4 Gar	1.5 Story	VG Barn	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	343 Oxford								\$490,000		3%
Not	287 Oxford	-\$9,051		\$9,000	-\$65,017	-\$15,000	-\$25,000		\$494,932	-1%	
Not	301 Oxford	-\$14,995	-\$10,000	\$6,510	\$36,838				\$452,353	8%	
Not	218 Oxford	-\$1,150		\$26,250	-\$46,036		-\$10,000	-\$10,000	\$484,064	1%	

6. Matched Pair – White Cross II, Chapel Hill, NC



This project is located in rural Orange County on White Cross Road with a 2.8 MW facility. This project is a few parcels south of White Cross Solar Farm that was developed by a different company. An adjoining home sold after construction as presented below.

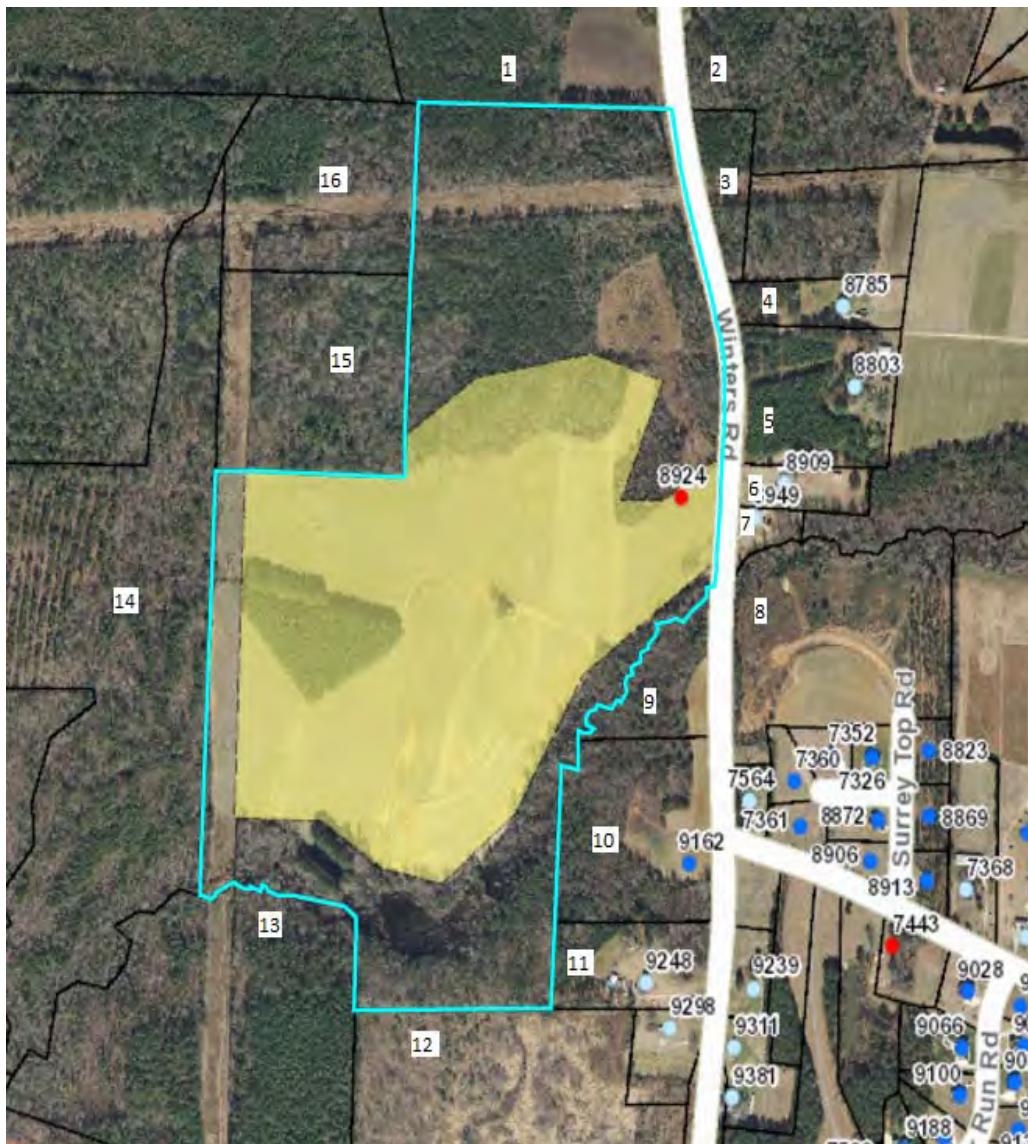
Adjoining Residential Sales After Solar Farm Completed

Solar	TAX ID/Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style
Adjoins	97482114578	11.78	2/29/2016	\$340,000	1994	1,601	\$212.37	3/3	Garage	Ranch
Not	4200B Old Greensbor	12.64	12/28/2015	\$380,000	2000	2,075	\$183.13	3/2.5	Garage	Ranch

Adjoining Residential Sales After Solar Farm Adjoining Sales Adjusted

Solar	TAX ID/Address	Sales Price	Time	Acres	YB	GLA	BR/BA	Park	Total	% Diff
Adjoins	97482114578	\$340,000							\$340,000	
Not	4200B Old Greensbor	\$380,000	\$3,800	\$0	-\$15,960	-\$43,402	\$5,000	\$0	\$329,438	3%

7. Matched Pair – Tracy Solar, Bailey, NC



This project is located in rural Nash County on Winters Road with a 5 MW facility that was built in 2016. A local builder acquired parcels 9 and 10 following construction as shown below at rates comparable to other tracts in the area. They then built a custom home for an owner and sold that at a price similar to other nearby homes as shown in the matched pair data below.

Adjoining Land Sales After Solar Farm Completed

#	Solar Farm	TAX ID	Grantor	Grantee	Address	Acres	Date Sold	Sales Price	\$/AC	Other
9 &10	Adjoins & 316004	316003 316004	Cozart	Kingsmill	9162 Winters	13.22	7/21/2016	\$70,000	\$5,295	
Not	6056	Billingsly			427 Young	41	10/21/2016	\$164,000	\$4,000	
Not	33211	Fulcher	Weikel		10533 Cone	23.46	7/18/2017	\$137,000	\$5,840	Doublewide, structures
Not	106807	Perry	Gardner		Claude Lewis	11.22	8/10/2017	\$79,000	\$7,041	Gravel drive for sub, cleared
Not	3437	Vaughan	N/A	Lewis Sch	11354 Old	18.73	Listing	\$79,900	\$4,266	Small cemetery,wooded

Adjoining Sales Adjusted

Time	Acres	Location	Other	Adj \$/Ac	% Diff
				\$5,295	

\$0	\$400	\$0	\$0	\$4,400	17%
-\$292	\$292	\$0	-\$500	\$5,340	-1%
-\$352	\$0	\$0	-\$1,000	\$5,689	-7%
-\$213	\$0	\$0	\$213	\$4,266	19%

Average	7%
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Adjoining Residential Sales After Solar Farm Completed

#	Solar Farm	Address	Acres	Date Sold	Sales Price	Built	GLA	\$/GLA	BR/BA	Style	Other
9 & 10	Adjoins	9162 Winters	13.22	1/5/2017	\$255,000	2016	1,616	\$157.80	3/2	Ranch	1296 sf wrkshp
	Not	7352 Red Fox	0.93	6/30/2016	\$176,000	2010	1,529	\$115.11	3/2	2-story	

Adjoining Sales Adjusted

Time	Acres	YB	GLA	Style	Other	Total	% Diff
						\$255,000	
\$0	\$44,000	\$7,392	\$5,007	\$5,000	\$15,000	\$252,399	1%

The comparables for the land show either a significant positive relationship or a mild negative relationship to having and adjoining solar farm, but when averaged together they show no negative impact. The wild divergence is due to the difficulty in comping out this tract of land and the wide variety of comparables used. The two comparables that show mild negative influences include a property that was partly developed as a residential subdivision and the other included a doublewide with some value and accessory agricultural structures. The tax assessed value on the improvements were valued at \$60,000. So both of those comparables have some limitations for comparison. The two that show significant enhancement due to adjacency includes a property with a cemetery located in the middle and the other is a tract almost twice as large. Still that larger tract after adjustment provides the best matched pair as it required the least adjustment. I therefore conclude that there is no negative impact due to adjacency to the solar farm shown by this matched pair.

The dwelling that was built on the site was a build-to-suit and was compared to a nearby homesale of a property on a smaller parcel of land. I adjusted for that difference based on a \$25,000 value for a 1-acre home site versus the \$70,000 purchase price of the larger subject tract. The other adjustments are typical and show no impact due to the adjacency to the solar farm.

The closest solar panel to the home is 780 feet away.

I note that the representative for Kingsmill Homes indicated that the solar farm was never a concern in purchasing the land or selling the home. He also indicated that they had built a number of nearby homes across the street and it had never come up as an issue.

8. Matched Pair – McBride Place Solar Farm, Midland, NC

This project is located on Mount Pleasant Road, Midland, North Carolina. The property is on 627 acres on an assemblage of 974.59 acres. The solar farm was approved in early 2017 for a 74.9 MW facility.

I have considered the sale of 4380 Joyner Road which adjoins the proposed solar farm near the northwest section. This property was appraised in April of 2017 for a value of \$317,000 with no consideration of any impact due to the solar farm in that figure. The property sold in November 2018 for \$325,000 with the buyer fully aware of the proposed solar farm.

I have considered the following matched pairs to the subject property.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	4380 Joyner	12.00	11/22/2017	\$325,000	1979	1,598	\$203.38	3/2	2xGar	Ranch	Outbldg
Not	3870 Elkwood	5.50	8/24/2016	\$250,000	1986	1,551	\$161.19	3/2.5	Det 2xGar	Craft	
Not	8121 Lower Rocky	18.00	2/8/2017	\$355,000	1977	1,274	\$278.65	2/2	2xCarp	Ranch	Eq. Fac.
Not	13531 Cabarrus	7.89	5/20/2016	\$267,750	1981	2,300	\$116.41	3/2	2xGar	Ranch	

Adjoining Sales Adjusted

Time	Acres	YB	Condition	GLA	BR/BA	Park	Other	Total	% Diff
								\$325,000	
\$7,500	\$52,000	-\$12,250	\$10,000	\$2,273	-\$2,000	\$2,500	\$7,500	\$317,523	2%
\$7,100	-\$48,000	\$4,970		\$23,156	\$0	\$3,000	-\$15,000	\$330,226	-2%
\$8,033	\$33,000	-\$3,749	\$20,000	-\$35,832	\$0	\$0	\$7,500	\$296,702	9%
Average									3%

After adjusting the comparables, I found that the average adjusted value shows a slight increase in value for the subject property adjoining a solar farm. As in the other cases, this is a mild positive and within the typical range of real estate transactions. I therefore conclude that these matched pairs show no impact on value.

I note that the home at 4380 Joyner Road is 275 feet from the closest proposed solar panel.

I also considered the recent sale of a lot on Kristi Lane that is on the east side of the proposed solar farm. This 4.22-acre lot sold in December 2017 for \$94,000. I spoke with the broker, Margaret Dabbs, who indicated that the solar farm was considered a positive by both buyer and seller as it insures no subdivision will be happening in that area. Buyers in this market are looking for privacy and seclusion. The other lots on Kristi Lane are likely to sale soon at similar prices. Ms. Dabbs indicated that they have had these lots on the market for about 5 years at asking prices that were probably a little high and they are now selling and they have another under contract.

9. Matched Pair – Beetle-Shelby Solar, Cleveland County, NC



This project is located on Bachelor Road at Timber Drive, Mooresboro, NC. This is a 4 MW facility on a parent tract of 24 acres.

I have considered a custom home on a nearby property adjoining this solar farm. This home is located on 10.08 acres, was built in 2013, and has a gross living area of 3,196 s.f. This property sold on October 1, 2018 \$416,000. I compared this to several nearby homes of similar size on large lots as shown below.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	1715 Timber	10.08	10/1/2018	\$416,000	2013	3,196	\$130.16	4/3.5	2xGar	1.5 story	Pool, Scrn Prch
Not	1021 Posting	2.45	2/15/2019	\$414,000	2000	4,937	\$83.86	4/4.5	2xGar	1.5 story	Scrn Prch
Not	2521 Wood	3.25	7/30/2017	\$350,000	2003	3,607	\$97.03	4/4	4xGar	1.5 story	Pool, sunroom
Not	356 Whitaker	7.28	1/9/2017	\$340,000	1997	3,216	\$105.72	4/4	2xGar	Ranch	Pole barn

Adjoining Sales Adjusted

Time	Acres	YB	GLA	BR/BA	Park	Other	Total	% Diff
							\$416,000	
	\$15,000	\$37,674	-\$58,398	-\$10,000			\$398,276	4%
\$10,500	\$12,000	\$24,500	-\$15,952	-\$5,000	-\$5,000		\$371,048	11%
\$15,300	\$5,000	\$38,080	-\$846	-\$5,000			\$392,534	6%
								Average 7%

The data on these sales all show that the subject property adjoining the solar farm sold for more than these other comparable sales. These sales suggest a mild increase in value due to proximity to the solar farm; however, the subject property is a custom home with upgrades that would balance out that difference. I therefore conclude that these matched pairs support an indication of no impact on property value.

10. Matched Pair – Courthouse Solar, Gaston County, NC



This project is a 5 MW facility located on 161.92 acres on Tryon Courthouse Road near Bessemer City that was approved in late 2016 but has not yet been constructed due to delays in the power purchase agreement process with Duke Progress Energy.

I have considered a recent sale of a home (Parcel 13) located across from this approved solar farm project as well as an adjoining lot sale (Parcel 25) to the west of this approved project.

I compared the home sale to similar sized homes with similar exposure to county roads as shown below. I considered three similar sales that once adjusted for differences show a positive relationship due to proximity to the solar farm. The positive impact is less than 5% which is a standard deviation for real estate transaction and indicates no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style
Adjoins	2134 Tryon Court.	0.85	3/15/2017	\$111,000	2001	1,272	\$87.26	3/2	Drive	Ranch
Not	214 Kiser	1.14	1/5/2017	\$94,000	1987	1,344	\$69.94	3/2	Drive	Ranch
Not	101 Windward	0.30	3/30/2017	\$104,000	1995	1,139	\$91.31	3/2	Drive	Ranch
Not	5550 Lennox	1.44	10/12/2018	\$115,000	2002	1,224	\$93.95	3/2	Drive	Ranch

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Time	Acres	YB	GLA	Total	% Diff
Adjoins	2134 Tryon Court.	0.85	3/15/2017	\$111,000					\$111,000	
Not	214 Kiser	1.14	1/5/2017	\$94,000		\$533		\$9,212	-\$1,511	\$102,234
Not	101 Windward	0.30	3/30/2017	\$104,000		-\$128		\$4,368	\$5,615	\$113,855
Not	5550 Lennox	1.44	10/12/2018	\$115,000		-\$5,444		-\$805	-\$2,396	\$106,355

Average 3%

Similarly, I compared the lot sale to four nearby land sales. Parcel 25 could not be subdivided and was a single estate lot. There were a number of nearby lot sales along Weaver Dairy that sold for \$43,000 to \$30,000 per lot for 4-acre home lots. Estate lots typically sell at a base homesite rate that would be represented by those prices plus a diminishing additional value per additional acre. The consideration of the larger tract more accurately illustrates the value per acre for larger tracts. After adjustments, the land sales show a mild positive impact on land value with an average increase of 9%, which supports a positive impact.

Adjoining Residential Land Sales After Solar Farm Approved							Adjoining Sales Adjusted				
Solar	Address	Acres	Date Sold	Sales Price	\$/Ac	Time	Acres	Total	% Diff	Note	
Adjoins	5021 Buckland	9.66	3/21/2018	\$58,500	\$6,056			\$58,500		1 homesite only	
Not	Campbell	6.75	10/31/2018	\$42,000	\$6,222	-\$773	\$18,107	\$59,333	-1%		
Not	Kiser	17.65	11/27/2017	\$69,000	\$3,909	\$647	-\$19,508	\$50,139	14%	6 acres less usable due to shape (50%)	
Not	522 Weaver Dairy	3.93	2/26/2018	\$30,000	\$7,634	\$57	\$25,000	\$55,057	6%		
Not	779 Sunnyside	6.99	3/6/2017	\$34,000	\$4,864	\$1,062	\$12,987	\$48,049	18%		
							Average		9%		

11. Matched Pair – Mariposa Solar, Gaston County, NC



This project is a 5 MW facility located on 35.80 acres out of a parent tract of 87.61 acres at 517 Blacksnake Road, Stanley that was built in 2016.

I have considered a number of recent sales around this facility as shown below.

The first is identified in the map above as Parcel 1, which is 215 Mariposa Road. This is an older dwelling on large acreage with only one bathroom. I've compared it to similar nearby homes as shown below.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style
Adjoins	215 Mariposa	17.74	12/12/2017	\$249,000	1958	1,551	\$160.54	3/1	Garage	Br/Rnch
Not	249 Mariposa	0.48	3/1/2019	\$153,000	1974	1,792	\$85.38	4/2	Garage	Br/Rnch
Not	110 Airport	0.83	5/10/2016	\$166,000	1962	2,165	\$76.67	3/2	Crprt	Br/Rnch
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	1980	2,156	\$112.48	3/2	Drive	1.5
Not	1201 Abernathy	27.00	5/3/2018	\$390,000	1970	2,190	\$178.08	3/2	Crprt	Br/Rnch

Adjoining Residential Sales After Solar Farm Approved					Adjoining Sales Adjusted								
Solar	Address	Acres	Date Sold	Sales Price	Time	YB	Acres	GLA	BR/BA	Park	Other	Total	% Diff
Adjoins	215 Mariposa	17.74	12/12/2017	\$249,000								\$249,000	
Not	249 Mariposa	0.48	3/1/2019	\$153,000	-\$5,583	-\$17,136	\$129,450	-\$20,576	-\$10,000			\$229,154	8%
Not	110 Airport	0.83	5/10/2016	\$166,000	\$7,927	-\$4,648	\$126,825	-\$47,078	-\$10,000			\$239,026	4%
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	-\$5,621	-\$37,345	\$95,475	-\$68,048	-\$10,000	\$5,000		\$221,961	11%
Not	1201 Abernathy	27.00	5/3/2018	\$390,000	-\$4,552	-\$32,760	-\$69,450	-\$60,705	-\$10,000			\$212,533	15%
												Average	9%

The average difference after adjusting for all factors is +9% on average, which suggests an enhancement due to the solar farm across the street. Given the large adjustments for acreage and size, I will focus on the low end of the adjusted range at 4%, which is within the typical deviation and therefore suggests no impact on value.

I have also considered Parcel 4 that sold after the solar farm was approved but before it had been constructed in 2016.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	242 Mariposa	2.91	9/21/2015	\$180,000	1962	1,880	\$95.74	3/2	Carport	Br/Rnch	Det Wrkshop
Not	249 Mariposa	0.48	3/1/2019	\$153,000	1974	1,792	\$85.38	4/2	Garage	Br/Rnch	
Not	110 Airport	0.83	5/10/2016	\$166,000	1962	2,165	\$76.67	3/2	Crprt	Br/Rnch	
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	1980	2,156	\$112.48	3/2	Drive		1.5

Adjoining Residential Sales After Solar Farm Approved

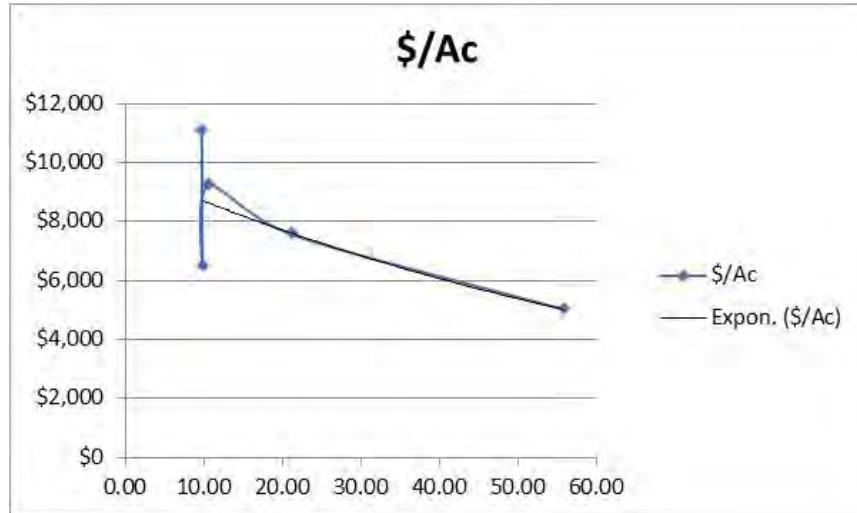
Solar	Address	Acres	Date Sold	Sales Price	Time	YB	Acres	GLA	BR/BA	Park	Other	Total	% Diff	
Adjoins	242 Mariposa	2.91	9/21/2015	\$180,000								\$180,000		
Not	249 Mariposa	0.48	3/1/2019	\$153,000	-\$15,807	-\$12,852	\$18,468	\$7,513			-\$3,000	\$25,000	\$172,322	
Not	110 Airport	0.83	5/10/2016	\$166,000	-\$3,165	\$0	\$15,808	-\$28,600				\$25,000	\$175,043	
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	-\$21,825	-\$30,555	-\$15,960	-\$40,942				\$2,000	\$25,000	\$160,218
												Average	6%	

The average difference after adjusting for all factors is +6%, which is again suggests a mild increase in value due to the adjoining solar farm use. The median is a 4% adjustment, which is within a standard deviation and suggests no impact on property value.

I have also considered the recent sale of Parcel 13 that is located on Blacksnake Road south of the project. I was unable to find good land sales in the same 20 acre range, so I have considered sales of larger and smaller acreage. I adjusted each of those land sales for time. I then applied the price per acre to a trendline to show where the expected price per acre would be for 20 acres. As can be seen in the chart below, this lines up exactly with the purchase of the subject property. I therefore conclude that there is no impact on Parcel 13 due to proximity to the solar farm.

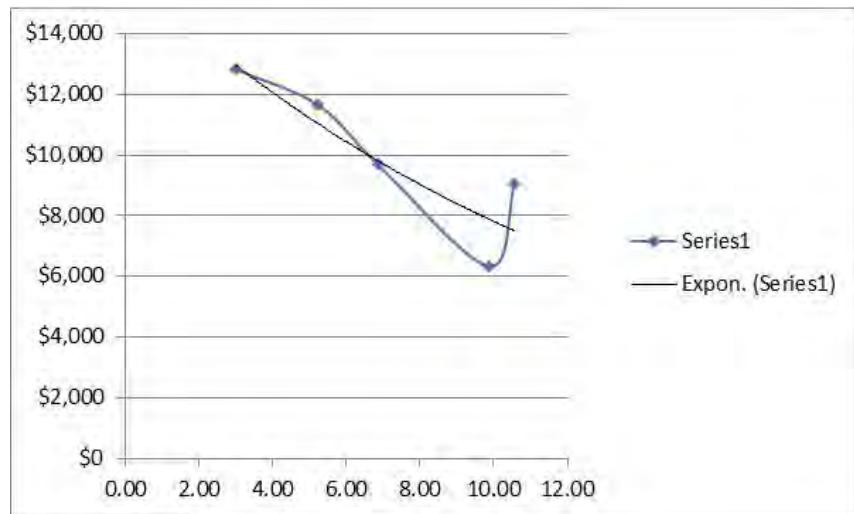
Adjoining Residential Land Sales After Solar Farm Approved

Solar	Tax/Street	Acres	Date Sold	Sales Price	\$/Ac	Time	\$/Ac
Adjoins	174339/Blacksnake	21.15	6/29/2018	\$160,000	\$7,565		\$7,565
Not	227852/Abernathy	10.57	5/9/2018	\$97,000	\$9,177	\$38	\$9,215
Not	17443/Legion	9.87	9/7/2018	\$64,000	\$6,484	-\$37	\$6,447
Not	164243/Alexis	9.75	2/1/2019	\$110,000	\$11,282	-\$201	\$11,081
Not	176884/Bowden	55.77	6/13/2018	\$280,000	\$5,021	\$7	\$5,027



Finally, I have considered the recent sale of Parcel 17 that sold as vacant land. I was unable to find good land sales in the same 7 acre range, so I have considered sales of larger and smaller acreage. I adjusted each of those land sales for time. I then applied the price per acre to a trendline to show where the expected price per acre would be for 7 acres. As can be seen in the chart below, this lines up with the trendline running right through the purchase price for the subject property. I therefore conclude that there is no impact on Parcel 13 due to proximity to the solar farm. I note that this property was improved with a 3,196 square foot ranch built in 2018 following the land purchase, which shows that development near the solar farm was unimpeded.

Adjoining Residential Land Sales After Solar Farm Approved						Adjoining Sales Adjusted			
Solar	Tax/Street	Acres	Date Sold	Sales Price	\$/Ac	Time	Location	\$/Ac	
Adjoins	227039/Mariposa	6.86	12/6/2017	\$66,500	\$9,694			\$9,694	
Not	227852/Abernathy	10.57	5/9/2018	\$97,000	\$9,177	-\$116		\$9,061	
Not	17443/Legion	9.87	9/7/2018	\$64,000	\$6,484	-\$147		\$6,338	
Not	177322/Robinson	5.23	5/12/2017	\$66,500	\$12,715	\$217	-\$1,272	\$11,661	
Not	203386/Carousel	2.99	7/13/2018	\$43,500	\$14,548	-\$262	-\$1,455	\$12,832	



12. Matched Pair – Candace Solar, Princeton, NC



This solar farm is located at 4839 US 70 Highway just east of Herring Road. This solar farm was completed on October 25, 2016.

I identified three adjoining sales to this tract after development of the solar farm with frontage on US 70. I did not attempt to analyze those sales as they have exposure to an adjacent highway and railroad track. Those homes are therefore problematic for a matched pair analysis unless I have similar homes fronting on a similar corridor.

I did consider a land sale and a home sale on adjoining parcels without those complications.

The lot at 499 Herring Road sold to Paradise Homes of Johnston County of NC, Inc. for \$30,000 in May 2017 and a modular home was placed there and sold to Karen and Jason Toole on September 29, 2017. I considered the lot sale first as shown below and then the home sale that followed.

Adjoining Land Sales After Solar Farm Approved								Adjoining Sales Adjusted			
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Other	Time	Site	Other	Total	% Diff
16	Adjoins	499 Herring	2.03	5/1/2017	\$30,000					\$30,000	
	Not	37 Becky	0.87	7/23/2019	\$24,500	Sub/Pwr	-\$1,679	\$4,900		\$27,721	8%
	Not	5858 Bizzell	0.88	8/17/2016	\$18,000		\$390	\$3,600		\$21,990	27%
	Not	488 Herring	2.13	12/20/2016	\$35,000		\$389			\$35,389	-18%
											Average 5%

Following the land purchase, the modular home was placed on the site and sold. I have compared this modular home to the following sales to determine if the solar farm had any impact on the purchase price.

Adjoining Residential Sales After Solar Farm Approved												
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
16	Adjoins	499 Herring	2.03	9/27/2017	\$215,000	2017	2,356	\$91.26	4/3	Drive	Modular	
	Not	678 WC	6.32	3/8/2019	\$226,000	1995	1,848	\$122.29	3/2.5	Det Gar	Mobile	Ag bldgs
	Not	1810 Bay V	8.70	3/26/2018	\$170,000	2003	2,356	\$72.16	3/2	Drive	Mobile	Ag bldgs
	Not	1795 Bay V	1.78	12/1/2017	\$194,000	2017	1,982	\$97.88	4/3	Drive	Modular	

Adjoining Residential Sales Af Adjoining Sales Adjusted											Avg		
Parcel	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance
16	Adjoins	499 Herring								\$215,000			488
	Not	678 WC	-\$10,037	-\$25,000	\$24,860	\$37,275	-\$5,000	-\$7,500	-\$20,000	\$220,599	-3%		
	Not	1810 Bay V	-\$2,579	-\$20,000	\$11,900	\$0				\$159,321	26%		
	Not	1795 Bay V	-\$1,063		\$0	\$21,964				\$214,902	0%		8%

The best comparable is 1795 Bay Valley as it required the least adjustment and was therefore most similar, which shows a 0% impact. This signifies no impact related to the solar farm.

The range of impact identified by these matched pairs ranges are therefore -3% to +26% with an average of +8% for the home and an average of +5% for the lot, though the best indicator for the lot shows a \$5,000 difference in the lot value due to the proximity to the solar farm or a -12% impact.

13. Matched Pair – Innovative Solar 46, Roslin Farm Rd, Hope Mills, NC



This project was built in 2016 and located on 532 acres for a 78.5 MW solar farm with the closest home at 125 feet from the closest solar panel with an average distance of 423 feet.

I considered the recent sale of a home on Roslin Farm Road just north of Running Fox Road as shown below. This sale supports an indication of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	6849 Roslin Farm	1.00	2/18/2019	\$155,000	1967	1,610	\$96.27	3/3	Drive	Ranch	Brick	435
Not	6592 Sim Canady	2.43	9/5/2017	\$185,000	1974	2,195	\$84.28	3/2	Gar	Ranch	Brick	
Not	1614 Joe Hall	1.63	9/3/2019	\$145,000	1974	1,674	\$86.62	3/2	Det Gar	Ranch	Brick	
Not	109 Bledsoe	0.68	1/17/2019	\$150,000	1973	1,663	\$90.20	3/2	Gar	Ranch	Brick	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	Avg
Adjoins	6849 Roslin Farm								\$155,000	5%
Not	6592 Sim Canady	\$8,278		-\$6,475	-\$39,444	\$10,000	-\$5,000		\$152,359	2%
Not	1614 Joe Hall	-\$2,407		-\$5,075	-\$3,881	\$10,000	-\$2,500		\$141,137	9%
Not	109 Bledsoe	\$404	\$10,000	-\$4,500	-\$3,346		-\$5,000		\$147,558	5%

14. Matched Pair – Innovative Solar 42, County Line Rd, Fayetteville, NC



This project was built in 2017 and located on 413.99 acres for a 71 MW with the closest home at 135 feet from the closest solar panel with an average distance of 375 feet.

I considered the recent sales identified on the map above as Parcels 2 and 3, which is directly across the street these homes are 330 and 340 feet away. Parcel 2 includes an older home built in 1976, while Parcel 3 is a new home built in 2019. So the presence of the solar farm had no impact on new construction in the area.

The matched pairs for each of these are shown below followed by a more recent map showing the panels at this site.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	2923 County Ln	8.98	2/28/2019	\$385,000	1976	2,905	\$132.53	3/3	2-Car	Ranch	Brick/Pond	340
Not	1928 Shaw Mill	17.00	7/3/2019	\$290,000	1977	3,001	\$96.63	4/4	2-Car	Ranch	Brick/Pond/Rental	
Not	2109 John McM.	7.78	4/25/2018	\$320,000	1978	2,474	\$129.35	3/2	Det Gar	Ranch	Vinyl/Pool/Stable	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	2923 County Ln								\$385,000		3%
Not	1928 Shaw Mill	-\$3,055	\$100,000	-\$1,450	-\$7,422	-\$10,000			\$368,074	4%	
Not	2109 John McM.	\$8,333		-\$3,200	\$39,023	\$10,000			\$5,000	\$379,156	2%

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	2935 County Ln	1.19	6/18/2019	\$266,000	2019	2,401	\$110.79	4/3	Gar	2-Story		330
Not	3005 Hemingway	1.17	5/16/2019	\$269,000	2018	2,601	\$103.42	4/3	Gar	2-Story		
Not	7031 Glynn Mill	0.60	5/8/2018	\$255,000	2017	2,423	\$105.24	4/3	Gar	2-Story		
Not	5213 Bree Brdg	0.92	5/7/2019	\$260,000	2018	2,400	\$108.33	4/3	3-Gar	2-Story		

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg
											% Diff
Adjoins	2935 County Ln								\$266,000		3%
Not	3005 Hemingway	\$748			\$1,345	-\$16,547			\$254,546	4%	
Not	7031 Glynn Mill	\$8,724			\$2,550	-\$1,852			\$264,422	1%	
Not	5213 Bree Brdg	\$920			\$1,300	\$76			-\$10,000	\$252,296	5%

Both of these matched pairs adjust to an average of +3% on impact for the adjoining solar farm, meaning there is a slight positive impact due to proximity to the solar farm. This is within the standard +/- of typical real estate transactions, which strongly suggests no impact on property value. I noted specifically that for 2923 County Line Road, the best comparable is 2109 John McMillan as it does not have the additional rental unit on it. I made no adjustment to the other sale for the value of that rental unit, which would have pushed the impact on that comparable downward – meaning there would have been a more significant positive impact.



Conclusion

The solar farm matched pairs shown above have similar characteristics to each other in terms of population, with most of the projects being in areas with a 1-mile radius population under 1,000, but with several outliers showing solar farms in more urban areas.

The median income for the population within 1 mile of a solar farm is \$52,272 with a median housing unit value of \$188,064. Most of the comparables are under \$350,000 in the home price, with \$770,000 being the high end of the set of matched pairs in my larger data set.

It is notable that the census data shows that the population in the area of the subject property has decreased over the last 9 years. Also, the population density, median income, and average housing unit price is lower for the subject property than the other comparables.

The adjoining uses show that residential and agricultural uses are the predominant adjoining uses.

These figures are in line with the larger set of solar farms that I have looked at with the predominant adjoining uses being residential and agricultural.

Matched Pair Summary							Adj. Uses By Acreage				1 mile Radius (2010-2016 Data)		
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com	Population	Income	Avg. Housing Unit
1	AM Best	Goldsboro	NC	38	5.00	2	38%	23%	0%	39%	1,523	\$37,358	\$148,375
2	White Cross	Chapel Hill	NC	45	5.00	50	5%	51%	44%	0%	213	\$67,471	\$319,929
3	Wagstaff	Roxboro	NC	30	5.00	46	7%	89%	4%	0%	336	\$41,368	\$210,723
4	Gaston SC	Gastonia	NC	35	5.00	48	33%	23%	0%	44%	4,689	\$35,057	\$126,562
5	Summit	Moyock	NC	2034	80.00	4	4%	94%	0%	2%	382	\$79,114	\$281,731
6	White Cross II	Chapel Hill	NC	34	2.80	35	25%	75%	0%	0%	213	\$67,471	\$319,929
7	Tracy	Bailey	NC	50	5.00	10	29%	71%	0%	0%	312	\$43,940	\$99,219
8	McBride	Midland	NC	627	75.00	140	12%	78%	10%	0%	398	\$63,678	\$256,306
9	Beetle-Shelby	Shelby	NC	24	4.00	52	22%	0%	77%	1%	218	\$53,541	\$192,692
10	Courthouse	Bessemer	NC	52	5.00	150	48%	52%	0%	0%	551	\$45,968	\$139,404
11	Mariposa	Stanley	NC	36	5.00	96	48%	52%	0%	0%	1,716	\$36,439	\$137,884
12	Candace	Princeton	NC	54	5.00	22	76%	0%	24%	0%	448	\$51,002	\$107,171
13	Innov 46	Hope Mills	NC	532	78.50	0	17%	0%	83%	0%	2,247	\$58,688	\$183,435
14	Innov 42	Fayetteville	NC	414	71.00	0	41%	0%	59%	0%	568	\$60,037	\$276,347
Average				286	25.09	47	29%	43%	22%	6%	987	\$52,938	\$199,979
Median				48	5.00	41	27%	52%	2%	0%	423	\$52,272	\$188,064
High				2,034	80.00	150	76%	94%	83%	44%	4,689	\$79,114	\$319,929
Low				24	2.80	0	4%	0%	0%	0%	213	\$35,057	\$99,219
1 – mile radius	Hornet Solar			858	75	80	30%	41%	23%	6%	721	\$67,584	\$244,419
3 – mile radius	Hornet Solar			858	75	80	30%	41%	23%	6%	9,162	\$65,382	\$260,980

I have pulled 31 matched pairs from the above referenced solar farms to provide the following summary of home sale matched pairs and land sales next to solar farms. The summary shows that the range of differences is from -10% to +6% with an average of +2% and median of +2%. This means that the average and median impact is for a slight positive impact due to adjacency to a solar farm. However, this 2% rate is within the typical variability I would expect from real estate. I therefore conclude that this data shows no negative or positive impact due to adjacency to a solar farm.

Similarly, the 7 land sales shows a median impact of 0% due to adjacency to a solar farm. The range of these adjustments range from -12% to +17%. Land prices tend to vary more widely than residential homes, which is part of that greater range. I consider this data to support no negative or positive impact due to adjacency to a solar farm.

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	Area	MW	Approx Distance	Tax ID/Address	Sale			
								Date	Sale Price	Adj. Sale Price	% Diff
1	AM Best	Goldsboro	NC	Suburban	5	280	3600195570 3600198928	Sep-13 Mar-14	\$250,000 \$250,000	\$250,000	0%
2	AM Best	Goldsboro	NC	Suburban	5	280	3600195361 3600194813	Sep-13 Apr-14	\$260,000 \$258,000	\$258,000	1%
3	AM Best	Goldsboro	NC	Suburban	5	280	3600199891 3600198928	Jul-14 Mar-14	\$250,000 \$250,000	\$250,000	0%
4	AM Best	Goldsboro	NC	Suburban	5	280	3600198632 3600193710	Aug-14 Oct-13	\$253,000 \$248,000	\$248,000	2%
5	AM Best	Goldsboro	NC	Suburban	5	280	3600196656 3601105180	Dec-13 Dec-13	\$255,000 \$253,000	\$253,000	1%
6	AM Best	Goldsboro	NC	Suburban	5	280	3600182511 3600183905	Feb-13 Dec-12	\$247,000 \$240,000	\$245,000	1%
7	AM Best	Goldsboro	NC	Suburban	5	280	3600182784 3600193710	Apr-13 Oct-13	\$245,000 \$248,000	\$248,000	-1%
8	AM Best	Goldsboro	NC	Suburban	5	280	3600195361 3600195361	Nov-15 Sep-13	\$267,500 \$260,000	\$267,800	0%
9	Pine Valley	West End	NC	Rural	5	175	16893 16897	Aug-16 Aug-16	\$66,000 \$59,000	\$65,490	1%
10	Neal Hawkins	Gastonia	NC	Suburban	5	275	139179 139179	Mar-17 Mar-17	\$270,000 \$270,000	\$270,000	0%
11	Summit	Moyock	NC	Suburban	80	1,060	129 Pinto 102 Timber	Apr-16 Apr-16	\$170,000 \$175,500	\$169,451	0%
12	Summit	Moyock	NC	Suburban	80	2,020	105 Pinto 127 Ranchland	Dec-16	\$206,000		
13	White Cross II	Chapel Hill	NC	Rural	2.8	1,479	2018 Elkins 4200B Old Greensbor	Feb-16 Dec-15	\$340,000 \$380,000	\$329,438	3%
14	Tracy	Bailey	NC	Rural	5	780	9162 Winters 7352 Red Fox	Jan-17 Jun-16	\$255,000 \$176,000	\$252,399	1%
15	McBride Place	Midland	NC	Rural	75	275	4380 Joyner 3870 Elkwood	Nov-17	\$325,000		
16	Conetoe	Conetoe	NC	Rural	80	1515	287 Leigh 63 Brittany	Mar-16 Jul-16	\$31,000 \$18,000	\$30,372	2%
17	Beetle-Shelby	Mooresboro	NC	Rural	4	945	1715 Timber 1021 Posting	Oct-18 Feb-19	\$416,000 \$414,000	\$398,276	4%
18	Courthouse	Bessemer	NC	Rural	5	375	2134 Tryon Court. 5550 Lennox	Mar-17 Oct-18	\$111,000 \$115,000	\$106,355	4%
19	Mariposa	Stanley	NC	Suburban	5	1155	215 Mariposa 110 Airport	Dec-17 May-16	\$249,000 \$166,000	\$239,026	4%
20	Mariposa	Stanley	NC	Suburban	5	570	242 Mariposa 110 Airport	Sep-15 Apr-16	\$180,000 \$166,000	\$175,043	3%
21	AM Best	Goldsboro	NC	Suburban	5	385	103 Granville Pl 2219 Granville	Jul-18 Jan-18	\$265,000 \$260,000	\$265,682	0%
22	AM Best	Goldsboro	NC	Suburban	5	315	104 Erin 2219 Granville	Jun-17 Jan-18	\$280,000 \$265,000	\$274,390	2%
23	AM Best	Goldsboro	NC	Suburban	5	400	2312 Granville 2219 Granville	May-18 Jan-18	\$284,900 \$265,000	\$273,948	4%
24	AM Best	Goldsboro	NC	Suburban	5	400	2310 Granville 634 Friendly	May-19 Jul-19	\$280,000 \$267,000	\$265,291	5%
25	Summit	Moyock	NC	Suburban	80	570	318 Green View 336 Green View	Sep-19	\$357,000 \$365,000	\$340,286	5%
26	Summit	Moyock	NC	Suburban	80	440	164 Ranchland 105 Longhorn	Apr-19 Oct-17	\$169,000 \$184,500	\$186,616	-10%
27	Summit	Moyock	NC	Suburban	80	635	358 Oxford 176 Providence	Sep-19	\$478,000 \$425,000	\$456,623	4%
28	Summit	Moyock	NC	Suburban	80	970	343 Oxford 218 Oxford	Mar-17 Apr-17	\$490,000 \$525,000	\$484,064	1%
29	Innov 46	Hope Mills	NC	Suburban	78.5	435	6849 Roslin Farm 109 Bledsoe	Feb-19 Jan-19	\$155,000 \$150,000	\$147,558	5%
30	Innov 42	Fayetteville	NC	Suburban	71	340	2923 County Line 2109 John McMillan	Feb-19 Apr-18	\$385,000 \$320,000	\$379,156	2%
31	Innov 42	Fayetteville	NC	Suburban	71	330	2935 County Line 7031 Glynn Mill	Jun-19 May-18	\$266,000 \$255,000	\$264,422	1%

Residential Dwelling Matched Pairs Adjoining Solar Farms Summary of Matched Pairs

	MW	Acres		% Diff
Average	30.72	583	Average	2%
Median	5.00	385	Median	2%
High	80.00	2,020	High	6%
Low	2.80	175	Low	-10%

Land Sale Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	Area	MW	Tax ID/Address	Sale Date	Sale Price	Acres	\$/AC	Adj.	% Diff
											\$/AC	
1	White Cross	Chapel Hill	NC	Rural	5	9748336770	Jul-13	\$265,000	47.20	\$5,614	\$5,278	6%
						9747184527	Nov-10	\$361,000	59.09	\$6,109		
2	Wagstaff	Roxboro	NC	Rural	5	91817117960	Aug-13	\$164,000	18.82	\$8,714	\$8,737	0%
						91800759812	Dec-13	\$130,000	14.88	\$8,737		
3	Tracy	Bailey	NC	Rural	5	316003	Jul-16	\$70,000	13.22	\$5,295	\$4,400	17%
						6056	Oct-16	\$164,000	41.00	\$4,000		
4	Courthouse	Bessemer	NC	Rural	5	5021 Buckland	Mar-18	\$58,500	9.66	\$6,056	\$5,190	14%
						Kiser	Nov-17	\$69,000	17.65	\$3,909		
5	Mariposa	Stanley	NC	Sub	5	174339	Jun-18	\$160,000	21.15	\$7,565	\$7,565	0%
						227852	May-18	\$97,000	10.57	\$9,177		
6	Mariposa	Stanley	NC	Sub	5	227039	Dec-17	\$66,500	6.86	\$9,694	\$9,694	0%
						177322	May-17	\$66,500	5.23	\$12,715		
7	Candace	Princeton	NC	Sub	5	499 Herring	May-17	\$30,000	2.03	\$14,778	\$16,615	-12%
						488 Herring	Dec-16	\$35,000	2.17	\$16,129		

Average	5.00	Average	4%
Median	5.00	Median	0%
High	5.00	High	17%
Low	5.00	Low	-12%

Larger Solar Farm Data

I have summarized the solar farm data for projects at 20 MW and higher as shown below. These include solar farms from various states including NC and I note that they show a very similar range of adjoining uses and very similar range of demographics within a 1-mile radius as shown below.

As shown on Page 43 the range of distances for these larger solar farms to the closest home trends higher with matched pairs as close as 250 feet. This is not to say that there aren't closer homes, but that this is the closest home that has sold and I was able to analyze. The data set for larger solar farms shown on Page 46 shows homes as close as 185 feet.

Matched Pair Summary			Adj. Uses By Acreage						1 mile Radius (2010-2018 Data)				
	Name	City	State	Acres	MW	Topo Shift	Res	Ag/Res	Ag	Com/Ind	Population	Income	Avg. Housing Unit
10	Summit	Moyock	NC	2,034	80.00	4	4%	94%	0%	2%	382	\$79,114	\$281,731
13	Manatee	Parrish	FL	1,180	75.00	20	2%	1%	97%	0%	48	\$75,000	\$291,667
14	McBride	Midland	NC	627	75.00	140	12%	78%	10%	0%	398	\$63,678	\$256,306
18	Grand Ridge	Streator	IL	160	20.00	1	8%	5%	87%	0%	96	\$70,158	\$187,037
24	Clarke Cnty	White Post	VA	234	20.00	70	14%	46%	39%	1%	578	\$81,022	\$374,453
25	Turner	Henrico	VA	250	20.00	49	63%	0%	37%	0%	911	\$76,283	\$292,807
26	Simon	Social Circle	GA	237	30.00	71	1%	36%	63%	0%	203	\$76,155	\$269,922
33	Walker	Barhamsville	VA	485	20.00	N/A	12%	20%	68%	0%	203	\$80,773	\$320,076
34	Innov 46	Hope Mills	NC	532	78.50	0	17%	0%	83%	0%	2,247	\$58,688	\$183,435
35	Innov 42	Fayetteville	NC	414	71.00	0	41%	0%	59%	0%	568	\$60,037	\$276,347
36	Demille	Lapeer	MI	160	28.40	10	10%	0%	68%	22%	2,010	\$47,208	\$187,214
37	Turrill	Lapeer	MI	230	19.60	10	75%	0%	59%	25%	2,390	\$46,839	\$110,361
Average				545	45	34	22%	23%	56%	4%	836	\$67,913	\$252,613
Median				332	29	10	12%	3%	61%	0%	483	\$72,579	\$273,135
High				2,034	80	140	75%	94%	97%	25%	2,390	\$81,022	\$374,453
Low				160	20	0	1%	0%	0%	0%	48	\$46,839	\$110,361

The breakdown of adjoining uses, population density, median income and housing prices for these projects are very similar to those of the larger set.

On the next page, I have reshown all of the 21 matched pairs specific to these 12 solar farms over 20 MW. This set shows impacts ranging from -10% to +7% with an average and median of +1%, which is very similar to the larger set. This suggests that the size of a project has no bearing on adjacent impacts as well.

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	Area	MW	Approx		Sale Date	Sale Price	Adj. Sale Price	% Diff
						Distance	Tax ID/Address				
21	Summit	Moyock	NC	Suburban	80	1,060	129 Pinto 102 Timber	Apr-16	\$170,000		
22	Summit	Moyock	NC	Suburban	80	2,020	105 Pinto 127 Ranchland	Apr-16	\$175,500	\$169,451	0%
25	Manatee	Parrish	FL	Rural	75	1180	13670 Highland 13851 Highland	Dec-16	\$206,000		
26	McBride Place	Midland	NC	Rural	75	275	4380 Joyner 3870 Elkwood	Aug-18	\$255,000		
31	Grand Ridge	Streator	IL	Rural	20	480	1497 E 21st 712 Columbus	Sep-18	\$240,000	\$255,825	0%
44	Clarke Cnty	White Post	VA	Rural	20	1230	833 Nations Spr 541 Old Kitchen	Nov-17	\$325,000		
45	Turner	Henrico	VA	Rural	20	1540	8573 Strath 9300 Varina	Aug-16	\$250,000	\$317,523	2%
64	Walker	Barhamsville	VA	Rural	20	250	5241 Barham 9252 Ordinary	Oct-16	\$186,000		
69	Summit	Moyock	NC	Suburban	80	570	318 Green View 336 Green View	Jun-16	\$166,000	\$184,000	1%
70	Summit	Moyock	NC	Suburban	80	440	164 Ranchland 105 Longhorn	Jan-17	\$295,000		
71	Summit	Moyock	NC	Suburban	80	635	358 Oxford 176 Providence	Feb-19	\$204,900		
72	Summit	Moyock	NC	Suburban	80	970	343 Oxford 218 Oxford	Dec-18	\$186,000	\$207,238	-1%
73	Innov 46	Hope Mills	NC	Suburban	78.5	435	6849 Roslin Farm 109 Bledsoe	Oct-18	\$277,000	\$246,581	7%
74	Innov 42	Fayetteville	NC	Suburban	71	340	2923 County Line 2109 John McMillan	Apr-19	\$169,000		
75	Innov 42	Fayetteville	NC	Suburban	71	330	2935 County Line 7031 Glynn Mill	Oct-17	\$184,500	\$186,616	-10%
76	Demille	Lapeer	MI	Suburban	28	310	1120 Don Wayne 1231 Turrill	Sep-19	\$478,000		
77	Demille	Lapeer	MI	Suburban	28	310	1126 Don Wayne 3565 Garden	Sep-19	\$425,000	\$456,623	4%
78	Demille	Lapeer	MI	Suburban	28	380	1138 Don Wayne 1128 Gwen	Mar-17	\$490,000		
79	Demille	Lapeer	MI	Suburban	28	280	1174 Alice 1127 Don Wayne	Apr-17	\$525,000	\$484,064	1%
80	Turrill	Lapeer	MI	Suburban	20	290	1060 Cliff 1128 Gwen	Jan-19	\$320,000	\$379,156	5%
81	Turrill	Lapeer	MI	Suburban	20	255	1040 Cliff 1127 Don Wayne	Sep-18	\$200,500		
								Aug-19	\$194,000	\$264,422	-4%
								Oct-19	\$182,000	\$200,895	-4%
								May-18	\$160,000	\$163,016	-2%
								May-19	\$165,000	\$187,500	1%
								Aug-19	\$191,000	\$189,733	1%
								Aug-18	\$165,000	\$163,443	1%
								Jan-19	\$176,900	\$200,350	0%
								Sep-18	\$200,500		
								Jun-17	\$145,600		
								Sep-19	\$176,900	\$146,271	0%
						Avg.					
						MW	Distance				
						Average	51.55				
						Median	71.00				
						High	80.00				
						Low	20.00				
						Average	647				
						Median	435				
						High	2,020				
						Low	250				
						Average	1%				
						Median	1%				
						High	7%				
						Low	-10%				

It's useful to note that Matched Pair 69 on Green View Drive is within a golf course community that adjoins the solar farm, but that test pair has no golf view.

I also note that Matched Pairs 72 and 75 were new homes that were built after the solar farm was constructed so the adjoining solar farm was not a limiting factor on construction in those cases.

I have also researched information on a number of larger solar farm projects across the country where many are newer and there have not been any adjoining sales for analysis at this time, but do show a similar range of adjoining uses as those projects listed above.

On the following page I show 63 projects ranging in size from 50 MW up to 1,000 MW with an average size of 118.48 MW and a median of 80 MW. The average closest distance for an adjoining home is 241 feet, while the median distance is 175 feet. The closest distance is 57 feet. The mix of adjoining uses is similar with most of the adjoining uses remaining residential or agricultural in nature.

Parcel #	State	County	City	Name	Output (MW)	Total	Used Acres	Avg. Dist to home	Closest Home	Adjoining Res	Agri	Agri/Res Com
						Output (MW)	Acres	Acres	to home	Home	Res	Agri
78 NC	Currituck	Moyock	Summit/Ranchland	80	2034		674	360	4%	94%	0%	2%
133 MS	Forrest	Hattiesburg	Hattiesburg	50	1129	479.6	650	315	35%	65%	0%	0%
179 SC	Jasper	Ridgeland	Jasper	140	1600	1000	461	108	2%	85%	13%	0%
211 NC	Halifax	Enfield	Chestnut	75	1428.1		1,429	210	4%	96%	0%	0%
222 VA	Mecklenburg	Chase City	Grasshopper	80	946.25				6%	87%	5%	1%
226 VA	Louisa	Louisa	Belcher	88	1238.1			150	19%	53%	28%	0%
305 FL	Pasco	Dade City	Mountain View	55	347.12		510	175	32%	39%	21%	8%
319 FL	Hamilton	Jasper	Hamilton	74.9	1268.9	537	3,596	240	5%	67%	28%	0%
336 FL	Manatee	Parrish	Manatee	74.5	1180.4		1,079	625	2%	50%	1%	47%
337 FL	DeSoto	Arcadia	Citrus	74.5	640				0%	0%	100%	0%
338 FL	Charlotte	Port Charlotte	Babcock	74.5	422.61				0%	0%	100%	0%
353 VA	Accomack	Oak Hall	Amazon East(ern shore)	80	1000		645	135	8%	75%	17%	0%
364 VA	Culpepper	Stevensburg	Greenwood	100	2266.6	1800	788	200	8%	62%	29%	0%
368 NC	Duplin	Warsaw	Warsaw	87.5	585.97	499	526	130	11%	66%	21%	3%
390 NC	Richmond	Ellerbe	Innovative Solar 34	50	385.24	226	N/A	N/A	1%	99%	0%	0%
399 NC	Cabarrus	Midland	McBride	74.9	974.59	627	1,425	140	12%	78%	9%	0%
400 FL	Polk	Mulberry	Alafia	51	420.35		490	105	7%	90%	3%	0%
406 VA	Halifax	Clover	Foxhound	91	1311.8		885	185	5%	61%	17%	18%
410 FL	Gilchrist	Trenton	Trenton	74.5	480		2,193	775	0%	26%	55%	19%
411 NC	Edgecombe	Battleboro	Fern	100	1235.4	960.71	1,494	220	5%	76%	19%	0%
412 MD	Caroline	Goldsboro	Cherrywood	202	1722.9	1073.7	429	200	10%	76%	13%	0%
434 NC	Edgecombe	Conetoe	Conetoe	80	1389.9	910.6	1,152	120	5%	78%	17%	0%
440 FL	Volusia	Debary	Debary	74.5	844.63		654	190	3%	27%	0%	70%
441 FL	Alachua & Pt Hawthorne	Horizon	Horizon	74.5	684				3%	81%	16%	0%
484 VA	Southampton	Newsoms	Southampton	100	3243.9		-	-	3%	78%	17%	3%
486 VA	Augusta	Stuarts Draft	Augusta	125	3197.4	1147	588	165	16%	61%	16%	7%
491 NC	Stanly	Misenheimer	Misenheimer 2018	80	740.2	687.2	504	130	11%	40%	22%	27%
494 VA	King and Que	Shacklefords	Walnut	110	1700	1173	641	165	14%	72%	13%	1%
496 VA	Halifax	Clover	Piney Creek	80	776.18	422	523	195	15%	62%	24%	0%
511 NC	Halifax	Scotland Neck	American Beech	160	3255.2	1807.8	1,262	205	2%	58%	38%	3%
514 NC	Rockingham	Reidsville	Williamsburg	80	802.6	507	734	200	25%	12%	63%	0%
517 VA	Page	Luray	Cape	100	566.53	461	519	110	42%	12%	46%	0%
518 VA	Greenville	Emporia	Fountain Creek	80	798.3	595	862	300	6%	23%	71%	0%
525 NC	Washington	Plymouth	Macadamia	484	5578.7	4813.5	1,513	275	1%	90%	9%	0%
526 NC	Cleveland	Mooresboro	Broad River	50	759.8	365	419	70	29%	55%	16%	0%
555 FL	Polk	Mulberry	Durrance	74.5	463.57	324.65	438	140	3%	97%	0%	0%
560 NC	Yadkin	Yadkinville	Sugar	60	477	357	382	65	19%	39%	20%	22%
561 NC	Halifax	Enfield	Halifax 80mw 2019	80	1007.6	1007.6	672	190	8%	73%	19%	0%
577 VA	Isle of Wight	Windsor	Windsor	85	564.1	564.1	572	160	9%	67%	24%	0%
579 VA	Spotsylvania	Paytes	Spotsylvania	500	6412	3500			9%	52%	11%	27%
582 NC	Rowan	Salisbury	China Grove	65	428.66	324.26	438	85	58%	4%	38%	0%
583 NC	Stokes	Walnut Cove	Lick Creek	50	1424	185.11	410	65	20%	64%	11%	5%
584 NC	Halifax	Enfield	Sweetleaf	94	1956.3	1250	968	160	5%	63%	32%	0%
586 VA	King William	Aylett	Sweet Sue	77	1262	576	1,617	680	7%	68%	25%	0%
593 NC	Bertie	Windsor	Sumac	120	3360.6	1257.9	876	160	4%	90%	6%	0%
599 TN	Fayette	Somerville	Yum Yum	147	4000	1500	1,862	330	3%	32%	64%	1%
602 GA	Burke	Waynesboro	White Oak	76.5	516.7	516.7	2,995	1,790	1%	34%	65%	0%
603 GA	Taylor	Butler	Butler GA	103	2395.1	2395.1	1,534	255	2%	73%	23%	2%
604 GA	Taylor	Butler	White Pine	101.2	505.94	505.94	1,044	100	1%	51%	48%	1%
605 GA	Candler	Metter	Live Oak	51	417.84	417.84	910	235	4%	72%	23%	0%
606 GA	Jeff Davis	Hazelhurst	Hazelhurst II	52.5	947.15	490.42	2,114	105	9%	64%	27%	0%
607 GA	Decatur	Bainbridge	Decatur Parkway	80	781.5	781.5	1,123	450	2%	27%	22%	49%
608 GA	Sumter	Leslie-DeSoto	Americus	1000	9661.2	4437	5,210	510	1%	63%	36%	0%
616 FL	Colombia	Fort White	Fort White	74.5	570.5	457.2	828	220	12%	71%	17%	0%
621 VA	Surry	Spring Grove	Loblolly	150	2181.9	1000	1,860	110	7%	62%	31%	0%
622 VA	Albemarle	Scottsville	Woodridge	138	2260.9	1000	1,094	170	9%	63%	28%	0%
625 NC	Nash	Middlesex	Phobos	80	754.52	734	356	57	14%	75%	10%	0%
628 MI	Lenawee	Deerfield	Carroll Road	200	1694.8	1694.8	343	190	12%	86%	0%	2%
633 VA	Greenville	Emporia	Brunswick	150.2	2076.4	1387.3	1,091	240	4%	85%	11%	0%
634 NC	Surry	Elkin	Partin	50	429.4	257.64	945	155	30%	25%	15%	30%
638 GA	Twiggs	Dry Branch	Twiggs	200	2132.7	2132.7	-	-	10%	55%	35%	0%
639 NC	Cumberland	Hope Mills	Innovative Solar 46	78.5	531.87	531.87	423	125	17%	83%	0%	0%
640 NC	Cumberland	Hope Mills	Innovative Solar 42	71	413.99	413.99	375	135	41%	59%	0%	0%

Total Number of Solar Farms

63

Average	118.48	1533.1	1043.6	1058	241	11%	60%	24%	6%
Median	80.00	1000.0	657.1	808	175	7%	64%	19%	0%
High	1000.00	9661.2	4813.5	5210	1790	58%	99%	100%	70%
Low	50.00	347.1	185.1	343	57	0%	0%	0%	0%

II. Harmony of Use/Compatibility

I have researched over 600 solar farms and sites on which solar farms are proposed in North Carolina and Virginia as well as other states to determine what uses and types of areas are compatible and harmonious with a solar farm. The data I have collected and provide in this report strongly supports the compatibility of solar farms with adjoining agricultural and residential uses. There are many examples of solar farms being located in close proximity to schools, churches, subdivisions, and golf course communities. Solar farms have been located on former golf courses in Cleveland and Currituck Counties.

New development adjoining solar farms is ongoing with new subdivision and new home construction occurring on land adjoining existing solar farms.

The subdivisions included in the matched pair analysis also show an acceptance of residential uses adjoining solar farms as a harmonious use.

Beyond these anecdotal references, I have quantified the adjoining uses for a number of solar farm comparables to derive a breakdown of the adjoining uses for each solar farm. The chart below shows the breakdown of adjoining or abutting uses by total acreage.

Percentage By Adjoining Acreage							All Res	All Comm	
	Res	Ag	Res/AG	Comm	Ind	Avg. Dist to Home	Closest Home	Uses	Uses
Average	19%	53%	20%	1%	7%	849	346	92%	8%
Median	11%	57%	8%	0%	0%	661	215	100%	0%
High	100%	100%	100%	80%	96%	4,835	4,670	100%	96%
Low	0%	0%	0%	0%	0%	90	25	0%	0%

Res = Residential, Ag = Agriculture, Sub = Substation, Com = Commercial, Ind = Industrial.

Total Solar Farms Considered: 493

I have also included a breakdown of each solar farm by number of adjoining parcels rather than acreage. Using both factors provides a more complete picture of the neighboring properties.

Percentage By Number of Parcels Adjoining							All Res	All Comm	
	Res	Ag	Res/AG	Comm	Ind	Avg. Dist to Home	Closest Home	Uses	Uses
Average	61%	24%	9%	2%	4%	848	346	94%	6%
Median	65%	20%	5%	0%	0%	661	215	100%	0%
High	100%	100%	100%	60%	78%	4,835	4,670	100%	78%
Low	0%	0%	0%	0%	0%	90	25	22%	0%

Res = Residential, Ag = Agriculture, Sub = Substation, Com = Commercial, Ind = Industrial.

Total Solar Farms Considered: 493

Both of the above charts show a marked residential and agricultural adjoining use for most solar farms. Every single solar farm considered included an adjoining residential or residential agricultural use. These comparable solar farms clearly support a compatibility with adjoining residential uses along with agricultural uses.

III. Summary of Local Solar Farm Projects

Below I have included a summary of 40 solar farms in Lincoln and adjoining counties to show the typical location, adjoining uses, and distances to homes in the area.

Parcel #	County	City	Name	Output (MW)	Total	Used	Avg. Dist	Closest	Adjoining Use by Acre				
					Acres	Acres	to home	Home	Res	Agri	Agri/Res Com		
3	Cleveland	Shelby	Kings Mtn	5	690.26	30			3%	12%	4%	82%	
5	Catawba	Hickory	Two Lines	6.4	100.56	100.56			3%	87%	8%	3%	
14	Lincoln	Vale	Vale Farm	5	48.99	48.99			1%	13%	86%	0%	
77	Lincoln	Stanley	Fire Solar		129.05		820	140	41%	23%	36%	0%	
94	Cleveland	Mooresboro	Gantts Grove		158		1,043	590	21%	79%	0%	0%	
134	Iredell	Mooresville	Triple		160.6		2,566	830	15%	82%	0%	3%	
172	Cleveland	Grover	Julie		28		255	40	21%	12%	0%	67%	
223	Gaston	Gastonia	Neal Hawkins	4.38	34.59		242	150	33%	23%	0%	44%	
227	Gaston	Bessemer City	Gaston		183.32		361	145	67%	33%	0%	0%	
231	Cleveland	Shelby	Lafayette	1.999	24.63		471	100	19%	81%	0%	0%	
234	Gaston	Bessemer City	Courthouse Rd	5	161.92		748	195	48%	52%	0%	1%	
235	Iredell	Stony Point	Old Mountain	3.96	19.99		250	145	25%	75%	0%	0%	
273	Cleveland	Lawndale	Stagecoach	5	108.81	33.5	1,214	455	73%	25%	0%	2%	
315	Cleveland	Mooresboro	McCraw		250	187	350	119	8%	73%	19%	0%	
325	Catawba	Claremont	Highway 16	5	90.91	30.5	561	260	35%	62%	0%	3%	
342	Cleveland	Shelby	Ayrshire	26.02	118				14%	86%	0%	0%	
385	Iredell	Statesville	1045 Tomlin Mill		136.57	26	1,357	600	4%	32%	16%	48%	
392	Catawba	Maiden	Simmental		1097.9	475			31%	38%	32%	0%	
405	Iredell	Stony Point	Delta	5	199.5	38	2,080	1,380	0%	47%	53%	0%	
476	Cleveland	Lawndale	Apex	30	474.52	357.44	513	78	21%	20%	58%	0%	
526	Cleveland	Mooresboro	Broad River	50	759.8	365	419	70	29%	55%	16%	0%	
527	Cleveland	Kings Mountain	York Solar	2	30.26	30.26	840	840	9%	91%	0%	0%	
528	Cleveland	Kings Mountain	Battleground	3.5	28.3	28.3	413	120	51%	49%	0%	0%	
529	Cleveland	Grover	Roper	5	56	56	881	265	68%	32%	0%	0%	
530	Cleveland	Kings Mountain	Dixon-Lux	4	54.33	54.33	563	200	6%	72%	0%	22%	
531	Cleveland	Kings Mountain	Innovative Solar 23	1.9	113.5	18.1	1,855	65	53%	37%	10%	0%	
532	Cleveland	Waco	Waco Farm	5	73.05	38.7	815	261	32%	0%	68%	0%	
533	Cleveland	Lawndale	Belwood	4.5	36.27	36.27	385	200	17%	80%	0%	3%	
534	Cleveland	Shelby	Hutchinson	6.7	102.68	58.5	881	145	53%	46%	0%	1%	
535	Cleveland	Shelby	County Home Solar	2	126.05	26.2	1,383	405	25%	72%	0%	4%	
536	Cleveland	Shelby	SID Solar 1	5	23.83	23.83	186	110	12%	35%	0%	53%	
537	Cleveland	Shelby	Shelby Solar Energy	20	220.98	220.98	2,403	665	17%	40%	40%	3%	
538	Cleveland	Mooresboro	Beetle-Shelby	4	23.69	23.69	342	170	22%	0%	77%	1%	
539	Cleveland	Shelby	Neisler	2	15.2	15.2	438	240	13%	0%	43%	44%	
540	Cleveland	Shelby	Shelby-Randolph	1.9	11.8	11.8	335	250	3%	25%	0%	72%	
541	Cleveland	Shelby	Audrey	3	26	26	463	175	23%	77%	0%	0%	
542	Cleveland	Shelby	Sophie	4.5	25.92	25.92	441	230	7%	63%	30%	0%	
556	Gaston	Lincolnton	High Shoals	16	131.97	81.14	250	200	14%	86%	0%	0%	
558	Gaston	Stanley	Stanley NC			87.61	35.8	891	565	48%	52%	0%	0%
615	Iredell	Statesville	Olin Creek	34.5	1220.3	568.17	1,236	345	4%	35%	44%	16%	
Total Number of Solar Farms					40								
				Average	8.98	184.6	102.4	807	307	25%	48%	16% 12%	
				Median	5.00	101.6	36.0	561	200	21%	47%	0% 0%	
				High	50.00	1220.3	568.2	2566	1380	73%	91%	86% 82%	
				Low	1.90	11.8	11.8	186	40	0%	0%	0% 0%	

IV. Specific Factors on Harmony with the Area

I have completed a number of Impact Studies related to a variety of uses and I have found that the most common areas for impact on adjoining values typically follow the following hierarchy with descending levels of potential impact. I will discuss each of these categories and how they relate to a solar farm.

1. Hazardous material
2. Odor
3. Noise
4. Traffic
5. Stigma
6. Appearance

1. Hazardous material

The solar farm presents no potential hazardous waste byproduct as part of normal operation. Any fertilizer, weed control, vehicular traffic, or construction will be significantly less than typically applied in a residential development or even most agricultural uses.

The various solar farms that I have inspected and identified in the addenda have no known environmental impacts associated with the development and operation.

2. Odor

The various solar farms that I have inspected produced no odor.

3. Noise

Whether discussing passive fixed solar panels, or single-axis trackers, there is no negative impact associated with noise from a solar farm. The transformer reportedly has a hum similar to an HVAC that can only be heard in close proximity to this transformer and the buffers on the property are sufficient to make emitted sounds inaudible from the adjoining properties. No sound is emitted from the facility at night.

The various solar farms that I have inspected were inaudible from the roadways.

4. Traffic

The solar farm will have no onsite employee's or staff. The site requires only minimal maintenance. Relative to other potential uses of the site (such as a residential subdivision), the additional traffic generated by a solar farm use on this site is insignificant.

5. Stigma

There is no stigma associated with solar farms and solar farms and people generally respond favorably towards such a use. While an individual may express concerns about proximity to a solar farm, there is no specific stigma associated with a solar farm. Stigma generally refers to things such as adult establishments, prisons, rehabilitation facilities, and so forth.

Solar panels have no associated stigma and in smaller collections are found in yards and roofs in many residential communities. Solar farms are located adjoining elementary, middle, and high

schools as well as churches as illustrated earlier in this report. Solar panels on a roof are often cited as an enhancement to the property in marketing brochures.

I see no basis for an impact from stigma due to a solar farm.

6. Appearance

Although “appearance” has been ruled by NC Courts to be irrelevant to the issue of “harmony with an area,” I note that larger solar farms using fixed or tracking panels are a passive use of the land that is considered in keeping with a rural/residential area. As shown below, solar farms are comparable to larger greenhouses. This is not surprising given that a greenhouse is essentially another method for collecting passive solar energy. The greenhouse use is well received in residential/rural areas and has a similar visual impact as a solar farm.



The solar panels are less than 15 feet high, which means that the visual impact of the solar panels will be similar in height to a typical greenhouse and lower than a single story residential dwelling. Were the subject property developed with single family housing, that development would have a much greater visual impact on the surrounding area given that a two-story home with attic could be three to four times as high as these proposed panels.

7. Conclusion

On the basis of the factors described above, it is my professional opinion that the proposed solar farm will be in harmony with the area in which it is to be developed. The breakdown of adjoining uses is similar to the other solar farms tracked.

V. Conclusion

The matched pair analysis shows no impact in home values due to abutting or adjoining a solar farm as well as no impact to abutting or adjacent vacant residential or agricultural land. The criteria that typically correlates with downward adjustments on property values such as noise, odor, and traffic all indicate that a solar farm is a compatible use for rural/residential transition areas and that it would function in a harmonious manner with this area.

Very similar solar farms in very similar areas have been found by hundreds of towns and counties not to have a substantial injury to abutting or adjoining properties, and many of those findings of no impact have been upheld by N.C. Courts or overturned by N.C. Courts when a board found otherwise (see, for example *Dellinger v. Lincoln County*). Similar solar farms have been approved adjoining agricultural uses, schools, churches, and residential developments. Industrial uses rarely absorb negative impacts from adjoining uses.

Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will have no impact on the value of adjoining or abutting property and that the proposed use is in harmony with the area in which it is located. I note that some of the positive implications of a solar farm that have been expressed by people living next to solar farms include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from former farming operations, protection from light pollution at night, it's quiet, and there is no traffic.

If you have any further questions please call me any time.

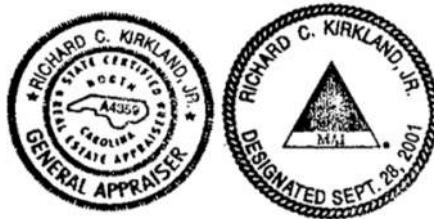
Sincerely,



Richard C. Kirkland, Jr., MAI
State Certified General Appraiser



Nicholas D. Kirkland
Licensed Residential Appraiser



Limiting Conditions and Assumptions

Acceptance of and/or use of this report constitutes acceptance of the following limiting conditions and assumptions; these can only be modified by written documents executed by both parties.

- ❖ The basic limitation of this and any appraisal is that the appraisal is an opinion of value, and is, therefore, not a guarantee that the property would sell at exactly the appraised value. The market price may differ from the market value, depending upon the motivation and knowledge of the buyer and/or seller, and may, therefore, be higher or lower than the market value. The market value, as defined herein, is an opinion of the probable price that is obtainable in a market free of abnormal influences.
- ❖ I do not assume any responsibility for the legal description provided or for matters pertaining to legal or title considerations. I assume that the title to the property is good and marketable unless otherwise stated.
- ❖ I am appraising the property as though free and clear of any and all liens or encumbrances unless otherwise stated.
- ❖ I assume that the property is under responsible ownership and competent property management.
- ❖ I believe the information furnished by others is reliable, but I give no warranty for its accuracy.
- ❖ I have made no survey or engineering study of the property and assume no responsibility for such matters. All engineering studies prepared by others are assumed to be correct. The plot plans, surveys, sketches and any other illustrative material in this report are included only to help the reader visualize the property. The illustrative material should not be considered to be scaled accurately for size.
- ❖ I assume that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. I take no responsibility for such conditions or for obtaining the engineering studies that may be required to discover them.
- ❖ I assume that the property is in full compliance with all applicable federal, state, and local laws, including environmental regulations, unless the lack of compliance is stated, described, and considered in this appraisal report.
- ❖ I assume that the property conforms to all applicable zoning and use regulations and restrictions unless nonconformity has been identified, described and considered in this appraisal report.
- ❖ I assume that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- ❖ I assume that the use of the land and improvements is confined within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in this report.
- ❖ I am not qualified to detect the presence of floodplain or wetlands. Any information presented in this report related to these characteristics is for this analysis only. The presence of floodplain or wetlands may affect the value of the property. If the presence of floodplain or wetlands is suspected the property owner would be advised to seek professional engineering assistance.
- ❖ For this appraisal, I assume that no hazardous substances or conditions are present in or on the property. Such substances or conditions could include but are not limited to asbestos, urea-formaldehyde foam insulation, polychlorinated biphenyls (PCBs), petroleum leakage or underground storage tanks, electromagnetic fields, or agricultural chemicals. I have no knowledge of any such materials or conditions unless otherwise stated. I make no claim of technical knowledge with regard

to testing for or identifying such hazardous materials or conditions. The presence of such materials, substances or conditions could affect the value of the property. However, the values estimated in this report are predicated on the assumption that there are no such materials or conditions in, on or in close enough proximity to the property to cause a loss in value. The client is urged to retain an expert in this field, if desired.

- ❖ Unless otherwise stated in this report the subject property is appraised without a specific compliance survey having been conducted to determine if the property is or is not in conformance with the requirements of the Americans with Disabilities Act (effective 1/26/92). The presence of architectural and/or communications barriers that are structural in nature that would restrict access by disabled individuals may adversely affect the property's value, marketability, or utility.
- ❖ Any allocation of the total value estimated in this report between the land and the improvements applies only under the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.
- ❖ Possession of this report, or a copy thereof, does not carry with it the right of publication.
- ❖ I have no obligation, by reason of this appraisal, to give further consultation or testimony or to be in attendance in court with reference to the property in question unless further arrangements have been made regarding compensation to Kirkland Appraisals, LLC.
- ❖ Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of Kirkland Appraisals, LLC, and then only with proper qualifications.
- ❖ Any value estimates provided in this report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in the report.
- ❖ Any income and expenses estimated in this report are for the purposes of this analysis only and should not be considered predictions of future operating results.
- ❖ This report is not intended to include an estimate of any personal property contained in or on the property, unless otherwise stated.
- ❖ This report is subject to the Code of Professional Ethics of the Appraisal Institute and complies with the requirements of the State of North Carolina for State Certified General Appraisers. This report is subject to the certification, definitions, and assumptions and limiting conditions set forth herein.
- ❖ The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA).
- ❖ This is a Real Property Appraisal Consulting Assignment.

Certification

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct;
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions;
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved;
4. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;
5. My engagement in this assignment was not contingent upon developing or reporting predetermined results;
6. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the appraisal;
7. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute;
8. The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives;
10. I have not made a personal inspection of the property that is the subject of this report and;
11. No one provided significant real property appraisal assistance to the person signing this certification.
12. As of the date of this report I have completed the requirements of the continuing education program of the Appraisal Institute;
13. I have not provided any appraisal or appraisal related work on the property within the three years preceding engagement of this assignment.

Disclosure of the contents of this appraisal report is governed by the bylaws and regulations of the Appraisal Institute and the National Association of Realtors.

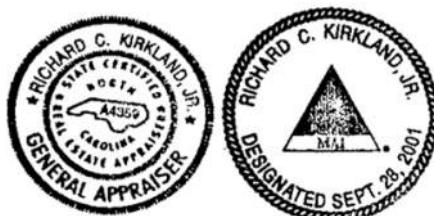
Neither all nor any part of the contents of this appraisal report shall be disseminated to the public through advertising media, public relations media, news media, or any other public means of communications without the prior written consent and approval of the undersigned.



Richard C. Kirkland, Jr., MAI
State Certified General Appraiser



Nicholas D. Kirkland
Licensed Residential Appraiser





Kirkland Appraisals, LLC

Richard C. Kirkland, Jr., MAI
9408 Northfield Court
Raleigh, North Carolina 27603
Mobile (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

PROFESSIONAL EXPERIENCE

Kirkland Appraisals, LLC , Raleigh, N.C.	2003 – Present
Commercial appraiser	
Hester & Company , Raleigh, N.C.	1996 – 2003

PROFESSIONAL AFFILIATIONS

MAI (Member, Appraisal Institute) designation #11796	2001
NC State Certified General Appraiser # A4359	1999
VA State Certified General Appraiser # 4001017291	
SC State Certified General Appraiser # 6209	
FL State Certified General Appraiser # RZ3950	
IL State Certified General Appraiser # 553.002633	
OR State Certified General Appraiser # C001204	

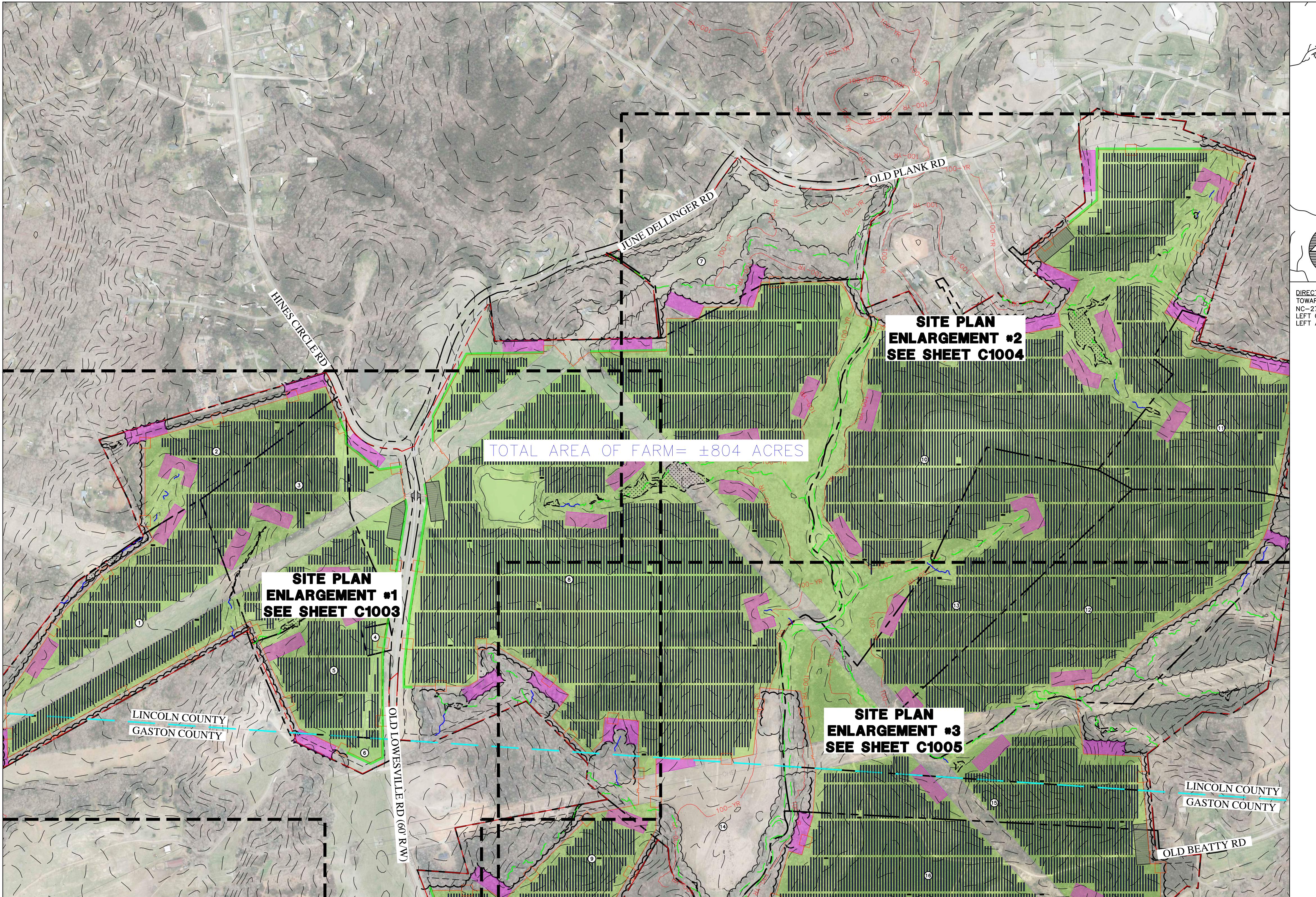
EDUCATION

Bachelor of Arts in English , University of North Carolina, Chapel Hill	1993
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CONTINUING EDUCATION

Income Approach Case Studies for Commercial Appraisers	2018
Introduction to Expert Witness Testimony for Appraisers	2018
Appraising Small Apartment Properties	2018
Florida Appraisal Laws and Regulations	2018
Uniform Standards of Professional Appraisal Practice Update	2018
Appraisal of REO and Foreclosure Properties	2017
Appraisal of Self Storage Facilities	2017
Land and Site Valuation	2017
NCDOT Appraisal Principles and Procedures	2017
Uniform Standards of Professional Appraisal Practice Update	2016
Forecasting Revenue	2015
Wind Turbine Effect on Value	2015
Supervisor/Trainee Class	2015
Business Practices and Ethics	2014
Subdivision Valuation	2014
Uniform Standards of Professional Appraisal Practice Update	2014
Introduction to Vineyard and Winery Valuation	2013
Appraising Rural Residential Properties	2012
Uniform Standards of Professional Appraisal Practice Update	2012
Supervisors/Trainees	2011
Rates and Ratios: Making sense of GIMs, OARs, and DCFs	2011
Advanced Internet Search Strategies	2011

Analyzing Distressed Real Estate	2011
Uniform Standards of Professional Appraisal Practice Update	2011
Business Practices and Ethics	2011
Appraisal Curriculum Overview (2 Days – General)	2009
Appraisal Review - General	2009
Uniform Standards of Professional Appraisal Practice Update	2008
Subdivision Valuation: A Comprehensive Guide	2008
Office Building Valuation: A Contemporary Perspective	2008
Valuation of Detrimental Conditions in Real Estate	2007
The Appraisal of Small Subdivisions	2007
Uniform Standards of Professional Appraisal Practice Update	2006
Evaluating Commercial Construction	2005
Conservation Easements	2005
Uniform Standards of Professional Appraisal Practice Update	2004
Condemnation Appraising	2004
Land Valuation Adjustment Procedures	2004
Supporting Capitalization Rates	2004
Uniform Standards of Professional Appraisal Practice, C	2002
Wells and Septic Systems and Wastewater Irrigation Systems	2002
Appraisals 2002	2002
Analyzing Commercial Lease Clauses	2002
Conservation Easements	2000
Preparation for Litigation	2000
Appraisal of Nonconforming Uses	2000
Advanced Applications	2000
Highest and Best Use and Market Analysis	1999
Advanced Sales Comparison and Cost Approaches	1999
Advanced Income Capitalization	1998
Valuation of Detrimental Conditions in Real Estate	1999
Report Writing and Valuation Analysis	1999
Property Tax Values and Appeals	1997
Uniform Standards of Professional Appraisal Practice, A & B	1997
Basic Income Capitalization	1996



NOTES:

1. THE PURPOSE OF THIS SITE PLAN IS FOR REVIEW AND APPROVAL BY THE LINCOLN COUNTY PLANNING AND DEVELOPMENT TO CONSTRUCT A SOLAR ENERGY SYSTEM. ALL INFORMATION SHOWN IS FOR PLANNING PURPOSES ONLY.
2. THE PROPERTY LINES, EXISTING IMPROVEMENTS AND TOPOGRAPHIC DATA SHOWN HEREON ARE NOT BASED ON A FIELD SURVEY AND HAVE BEEN COMPILED FROM PUBLICLY AVAILABLE SOURCES AND MUST BE CONFIRMED.
3. STREAMS, DITCHES AND WETLANDS SHOWN PER FIELD DELINEATION SURVEY PERFORMED BY PILOT ENVIRONMENTAL, INC ON DECEMBER 11, 2019 AND REVISED ON FEBRUARY 12, 2020.
4. PROJECT AREA WILL BE CLEARED AND GRUBBED AS NECESSARY. TO THE EXTENTS POSSIBLE PRE-DEVELOPMENT DRAINAGE PATTERNS WILL BE RETAINED. THIS PRELIMINARY TRACKER LAYOUT IS DIAGRAMMATIC. EROSION CONTROL & ROUGH GRADING ARE NOT SHOWN AS PART OF THIS PRELIMINARY SITE PLAN. THE PRELIMINARY TRACKER LAYOUT IS LIKELY TO CHANGE AS THE SITE IS DESIGNED. AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY STABILIZED WITH GRAVEL THAT WILL REMAIN AFTER CONSTRUCTION. SOIL CONDITIONS AND EQUIPMENT LOADS WILL DETERMINE FINAL DESIGN.
5. PROPOSED TEMPORARY LAYDOWN YARD/CONSTRUCTION STAGING AREA TO BE USED DURING SITE CONSTRUCTION. A PORTION OF THIS AREA (HATCHED) WILL BE COVERED WITH GRAVEL TO ALLOW DELIVERY OF CONSTRUCTION MATERIALS. PRIOR TO CONSTRUCTION, THIS AREA WILL BE COMPACTED BY A SMOOTH DRUM OR SHEEPSFOOT ROLLER TO REDUCE/PREVENT RUTTING. FOLLOWING CONSTRUCTION, ANY GRAVEL PLACED IN THE LAYDOWN YARD WILL BE REMOVED.
6. ACCESS AISLES SHOWN ON THIS PLAN INDICATE CONSTRUCTION AND MAINTENANCE ACCESS POINTS FOR INGRESS/EGRESS. PRIOR TO CONSTRUCTION, THESE AISLES ARE COMPACTED BY A SMOOTH DRUM OR SHEEPSFOOT ROLLER TO REDUCE/PREVENT RUTTING. GRAVEL MAY BE PLACED IN HIGH TRAFFIC OR POORLY DRAINING AREAS DURING CONSTRUCTION ACTIVITIES TO IMPROVE ACCESS. SOIL ACCESS AISLE WILL BE SCARIFIED, AERATED, AND RE-SEEDED AFTER CONSTRUCTION. ACCESS AISLES TO INVERTERS MAY REQUIRE GRAVEL TO SUPPORT DELIVERY EQUIPMENT LOADS. SOIL CONDITIONS AND FINAL EQUIPMENT SELECTION WILL DETERMINE IF GRAVEL ACCESS AISLES WILL BE REQUIRED TO INVERTER LOCATIONS.
7. THE PROPERTY SHOWN HEREON DOES LIE IN A FEMA SPECIAL FLOOD HAZARD AREA AS INDICATED BY FEMA FIRM MAP PANELS NO. 3710369000K & NO. 3710369100J DATED AUGUST 16, 2007.
8. ALL RIGHT-OF-WAYS ARE PUBLIC, UNLESS NOTED OTHERWISE.
9. UTILITY LINES AND SERVICES SHOWN HEREON ARE APPROXIMATE PER AERIAL PHOTOGRAPHY OR AS REPORTED BY VARIOUS RESPONSIBLE PARTIES. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CALL NC ONE CALL CENTER BEFORE DIGGING AT 811.
10. A SEDIMENT AND EROSION CONTROL PLAN WILL BE APPROVED BY NCDEQ PRIOR TO BEGINNING CONSTRUCTION.

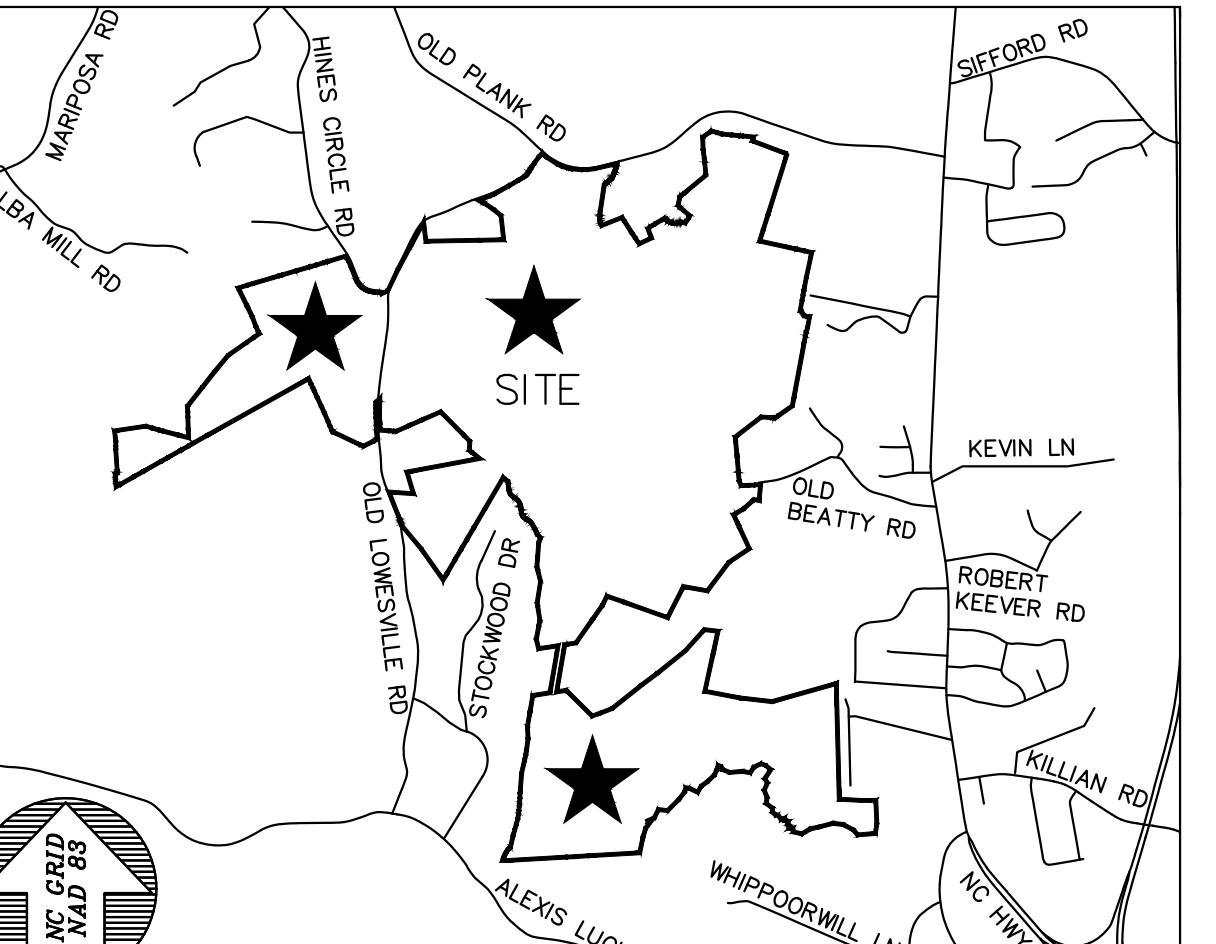
NOTES:

11. A DRIVEWAY PERMIT WILL BE APPROVED BY NC DOT PRIOR TO BEGINNING CONSTRUCTION.
12. SYSTEMS, EQUIPMENT AND STRUCTURES WILL NOT EXCEED FIFTEEN (15) FEET IN HEIGHT WHEN GROUND MOUNTED. EXCLUDED FROM THE HEIGHT REQUIREMENT, HOWEVER, ARE OVERHEAD ELECTRIC DISTRIBUTION LINES AND UTILITY POLES.
13. NO LIGHTING IS PROPOSED FOR THIS SITE.
14. ALUMINUM SIGNS ("DANGER - HIGH VOLTAGE" AND "DANGER NO TRESPASSING") MEASURING 14" X 10" IN SIZE WILL BE PLACED ON PERMANENT SECURITY FENCING, ALTERNATING EVERY 100' AROUND THE ARRAY.
15. 6' TALL CHAIN LINK FENCE WITH 3 STRANDS OF BARBED WIRE TO BE DESIGNED AND INSTALLED BY FENCING CONTRACTOR. THE PROPOSED 24' ACCESS GATE (TWO 12' SECTIONS) WILL BE LOCKED WITH STANDARD KEYED OR COMBINATION LOCK. EMERGENCY PERSONNEL (AS DESIGNATED BY STOKES COUNTY) WILL BE PROVIDED A KEY OR COMBINATION FOR ACCESS.
16. INTERNAL CABLING WILL BE BURIED UNDERGROUND TRENCHES, WHENEVER POSSIBLE.
17. INTERNAL ROADS ARE NOT SHOWN ON THIS PLAN AND WILL BE DETERMINED IN THE FINAL DESIGN.
18. PER LINCOLN COUNTY UNIFIED DEVELOPMENT ORDINANCE FOR SOLAR ENERGY DEVELOPMENT SETBACK REQUIREMENTS, THE MINIMUM SETBACK DISTANCE OF 50' IS REQUIRED FROM ALL PROPERTY BOUNDARIES.
19. PER LINCOLN COUNTY UNIFIED DEVELOPMENT ORDINANCE, WHERE A SITE ABUTS A PUBLIC ROAD OR PROPERTY WITH A RESIDENTIAL USE, THE FOLLOWING SCREENING SHALL BE PROVIDED UNLESS A MODIFICATION IS APPROVED BY THE BOARD OF COMMISSIONERS: TWO PARALLEL ROWS OF EVERGREEN TREES OR SHRUBS, A MINIMUM OF FIVE FEET IN HEIGHT AT PLANTING, ARRANGED IN A STAGGERED MANNER A MAXIMUM OF 10 FEET APART IN EACH ROW, WITH THE ROWS A MAXIMUM OF 10 FEET APART.
20. PER LINCOLN COUNTY UNIFIED DEVELOPMENT ORDINANCE, THE ELECTRICAL COLLECTION SYSTEM SHALL BE PLACED UNDERGROUND EXCEPT NEAR POINTS OF INTERCONNECTION WITH THE ELECTRIC GRID.
21. PER LINCOLN COUNTY UNIFIED DEVELOPMENT ORDINANCE, WHERE A SITE ABUTS A PUBLIC ROAD OR PROPERTY WITH A RESIDENTIAL USE, THE FOLLOWING SCREENING SHALL BE PROVIDED UNLESS A MODIFICATION IS APPROVED BY THE BOARD OF COMMISSIONERS: TWO PARALLEL ROWS OF EVERGREEN TREES OR SHRUBS, A MINIMUM OF FIVE FEET IN HEIGHT AT PLANTING, ARRANGED IN A STAGGERED MANNER A MAXIMUM OF 10 FEET APART IN EACH ROW, WITH THE ROWS A MAXIMUM OF 10 FEET APART.

SITE DATA TABLE

PROJECT NAME:	HORNET SOLAR, LLC
SITE ADDRESS:	OLD LOWESVILLE RD & OLD BEATTY RD, STANLEY, NC
CURRENT USE:	AGRICULTURAL/VACANT
PROPOSED USE:	SOLAR ENERGY SYSTEM
RIVER BASIN:	CATAWBA
TOTAL PARCEL AREA:	1499.5 ACRES
LINCOLN PARCEL AREA :	708.0 ACRES
TOTAL LEASED AREA:	1178.2 ACRES
LINCOLN LEASED AREA:	636.0 ACRES
TOTAL PROPOSED AREA OF SOLAR FARM:*	804.2 ACRES
LINCOLN PROPOSED AREA OF SOLAR FARM:*	472.6 ACRES

*AREA INSIDE PERMANENT FENCE (EXCLUDING EASEMENT AREAS).



DIRECTIONS: HEAD SOUTHWEST ON I-485 OUTER. TAKE EXIT 16 FOR NC-16/BROOKSHIRE BLVD TOWARD NEWTON. TURN RIGHT ONTO NC-16 N/BROOKSHIRE BLVD. TAKE THE EXIT TOWARD NC-273/NC-16 N. CONTINUE ONTO NC-16 BUSINESS N. TURN LEFT ONTO OLD PLANK RD. TURN LEFT ONTO JUNE DELLINGER RD. CONTINUE FOR APPROXIMATELY 0.1 MILE. SITE WILL BE ON THE LEFT AND RIGHT.

VICINITY MAP

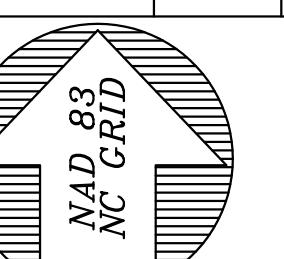
SCALE: 1" = 3000'

DRAWING LEGEND

SYMBOL/ABBREVIATION	EXISTING	PROPOSED	DESCRIPTION
-----			PROPERTY BOUNDARY
-----			ADJOINING PROPERTY BOUNDARY
-----			RIGHT-OF-WAY LINE
-----			EASEMENT LINE
-----			PROPERTY SETBACK
-----			COUNTY LINE
-----			LEASE LIMITS
-----			PERMANENT FENCE LINE
-----			LANDSCAPE BUFFER
-----			PERENNIAL STREAM CENTERLINE
-----			INTERMITTENT STREAM CENTERLINE
-----			WETLAND
-----			SEDIMENT BASIN AREA
-----			100-YEAR FLOODPLAIN
-----			OVERHEAD ELECTRIC LINE/POLE/GUY WIRE

SITE PARCEL DATA

LABEL #	OWNER	PARCEL #	ZONING	DB./PG.	PARCEL ACREAGE	COUNTY
1	TMSMJ PROPERTIES	207155	R-1	4283/2232	55.21	GASTON
2	LSMJ PROPERTIES LLC	57985	R-T	2363/668	20.03	LINCOLN
3	TMSMJ PROPERTIES	57984	R-T	1885/518	31.12	LINCOLN
4	TMSMJ PROPERTIES	57985	R-T	1885/518	1.00	LINCOLN
5	TMSMJ PROPERTIES	55956	R-T	1885/518	20.64	LINCOLN
6	TMSMJ PROPERTIES	211893	R-1	LINC/CNTY	2.57	GASTON
7	LTJ PROPERTIES LLC	33572	ELDD R-T	1885/514	32.32	LINCOLN
8	LTJ PROPERTIES LLC	33949	R-T	2363/672	278.00	LINCOLN
9	PAUL STEVEN ABERNATHY	222964	R-1	2186/552	41.09	GASTON
10	LTJ PROPERTIES LLC	88482	ELDD R-T	1885/514	124.34	LINCOLN
11	LTJ PROPERTIES LLC	34232	R-T	2831/485	29.46	LINCOLN
12	WEMALD LLC	54666	R-T	1990/277	63.14	LINCOLN
13	THOMAS CALVIN BEATTY	29536	R-T	2867/216	107.98	LINCOLN
14	N W JONES	211896	R-1	-	25.00	GASTON
15	THOMAS BEATTY, CALVIN BEATTY, & RANDAL GRIFFIN	211897	R-1	309/186	19.47	GASTON
16	THOMAS BEATTY, CALVIN BEATTY, & RANDAL GRIFFIN	173020	R-1	5086/1976	155.84	GASTON



SITE PLAN OVERVIEW - NORTH

400 0 200 400 800
(GRAPHIC SCALE IN FEET)
1 inch = 400 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
221 PROSPERITY ROAD, CHAPEL HILL, NC 27514
(919) 949-1480 • FAX: (919) 949-1789
COPYRIGHT © 2020. ALL RIGHTS RESERVED. ANY PART OF THIS DRAWING, IN WHOLE OR IN PART, MAY NOT BE COPIED, REPRODUCED, OR USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF BALLENTINE ASSOCIATES, P.A. WILL BE SUBJECT TO LEGAL ACTION.

NOT FOR CONSTRUCTION
036849
NORTH CAROLINA
PROFESSIONAL
ENGINEER
REGISTRATION
C-1411

DATE: 03 MAR 20
REVISIONS: PER LINCOLN COUNTY COMMENTS
NUM: 1
OWNER INFORMATION: RENEWABLE ENERGY SERVICES 148 COBBLE RIDGE DRIVE PITTSBORO, NC 27312
OWNERS REPRESENTATIVE: MATTHEW DELAFIELD PH. (919) 637-1139 FAX EMAIL: mdelfield@e-services.com

DATE: 25 FEB 20
ISSUED: 25 FEB 20
TO RES: 03 MAR 20
REVISIONS: TO RES

DATE: 03 MAR 20
ISSUED: 03 MAR 20
TO RES: 03 MAR 20
REVISIONS: TO RES

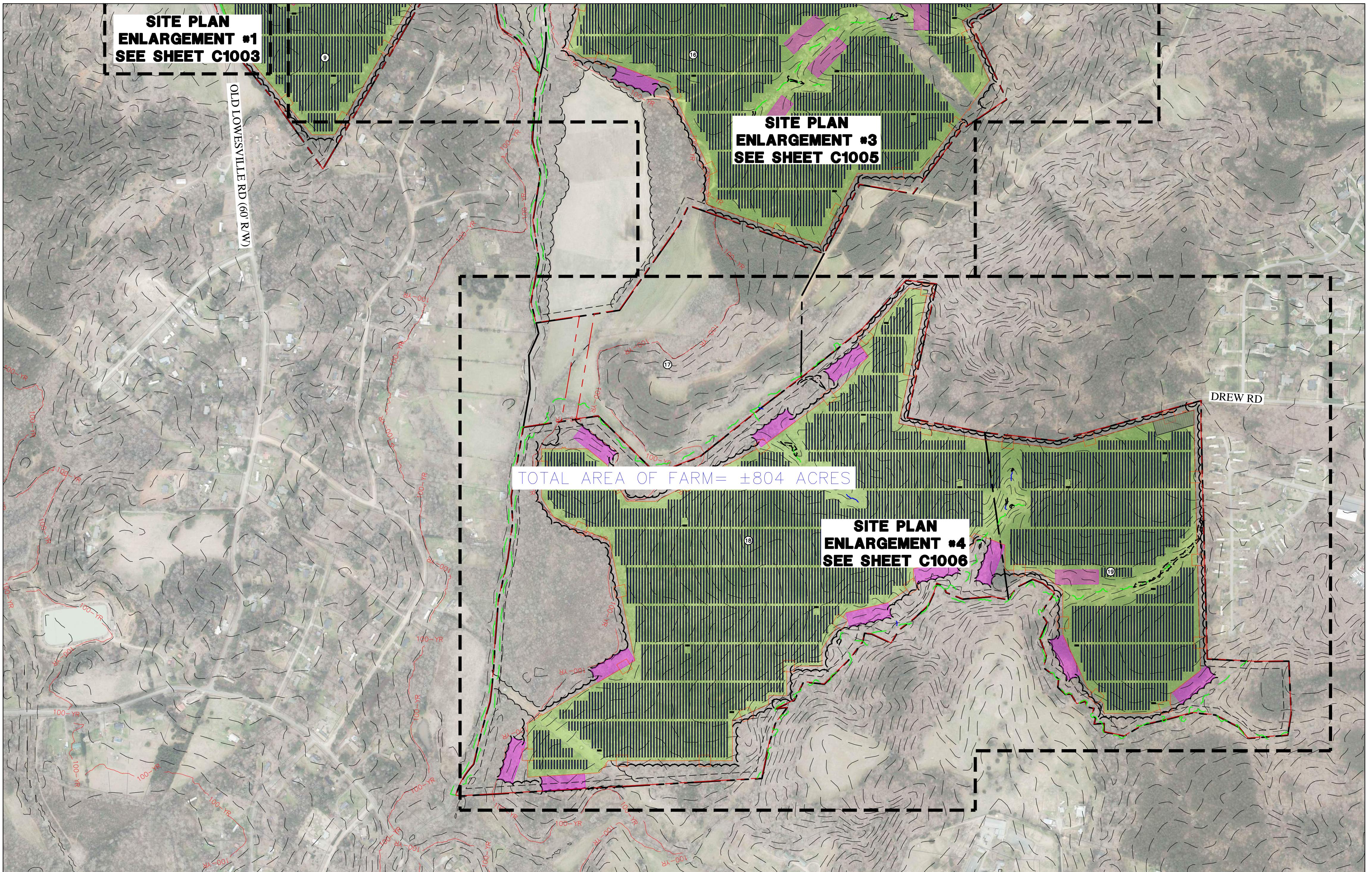
HORNET SOLAR, LLC
SOLAR ENERGY SYSTEM
LINCOLN COUNTY, NORTH CAROLINA
SITE PLAN DRAWINGS

JOB NUMBER: 118036.09
DATE: 25 FEB 20
SCALE: AS NOTED

DRAWN BY: J.B.M.
REVIEWED BY: A.R.S.

SHEET

C1001



PROPOSED SECURITY FENCE
6' CHAIN-LINK WITH 3 STRANDS
BARBED WIRE (TYP)

10' O.C.

2.5' O.C.

15' LANDSCAPE BUFFER

EVERGREEN TREES (OR EVERGREEN SHRUBS)

10' O.C.

NOTES

1. A 15' WIDE VEGETATIVE BUFFER SHALL BE REQUIRED AS SHOWN ON THE SITE PLAN.
2. EVERGREEN TREE AND EVERGREEN SHRUBS MUST BE A MINIMUM OF 5' IN HEIGHT AT PLANTING.
3. ALTERNATING TREES CAN BE SELECTED FROM THE LISTED EVERGREEN TREES.

<u>EVERGREEN TREES:</u>	
OSMANTHUS AMERICANUS	(OSMANTHUS)
MAGNOLIA GRANDIFLORA	(SOUTHERN MAGNOLIA)
VIBURNUM AWABUKI 'CHINDO'	(CHINDO VIBURNUM)
ILEX X 'NELLIE R. STEVENS'	(NELLIE STEVENS HOLL.

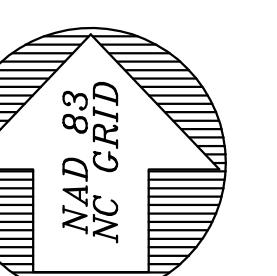
<u>EVERGREEN SHRUBS:</u>	
ABELIA X GRADIFLORA	(GLOSSY ABELIA)
ILEX VOMITORIA	(YAUPON HOLLY)
CALICCARPA AMERICANA	(AMERICAN BEAUTY BUSH)
HIBISCUS SYRIACUS	(ROSE OF SHARON)

TYPICAL TRACKER RACK SIDE ELEVATION
NOT TO SCALE

TYPICAL RACK FRONT ELEVATION

SEE NOTE #12 FOR MAX. HEIGHT REQUIREMENT

A3
C1002 TYPICAL RACK ELEVATIONS
SCALE: N.T.S.



SITE PLAN VIEW - SOUTH

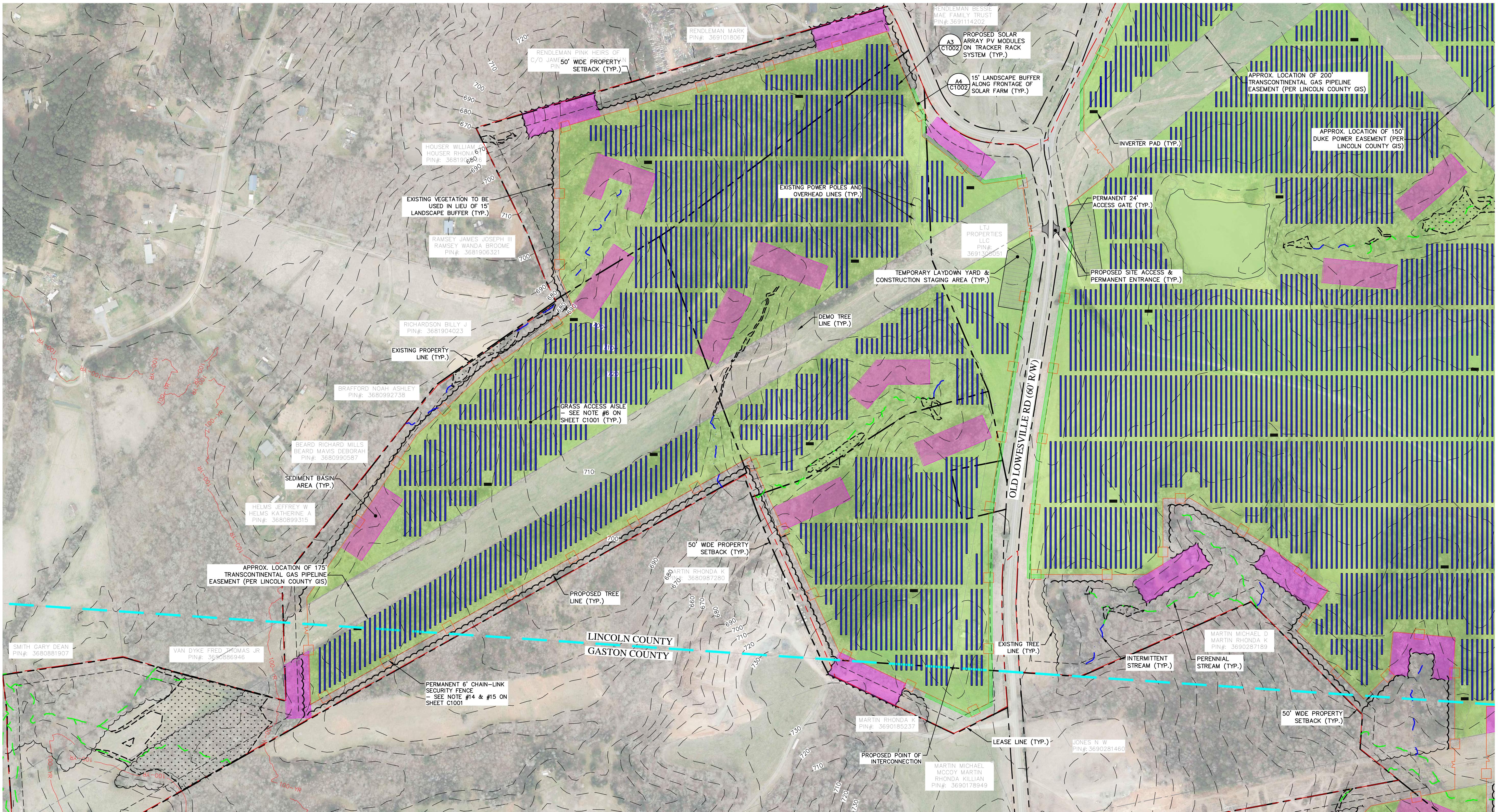
**REVIEW DRAWING
NOT FOR CONSTRUCTION**

HORNET SOLAR, LLC
SOLAR ENERGY SYSTEM
LINCOLN COUNTY, NORTH CAROLINA

SITE PLAN DRAWINGS

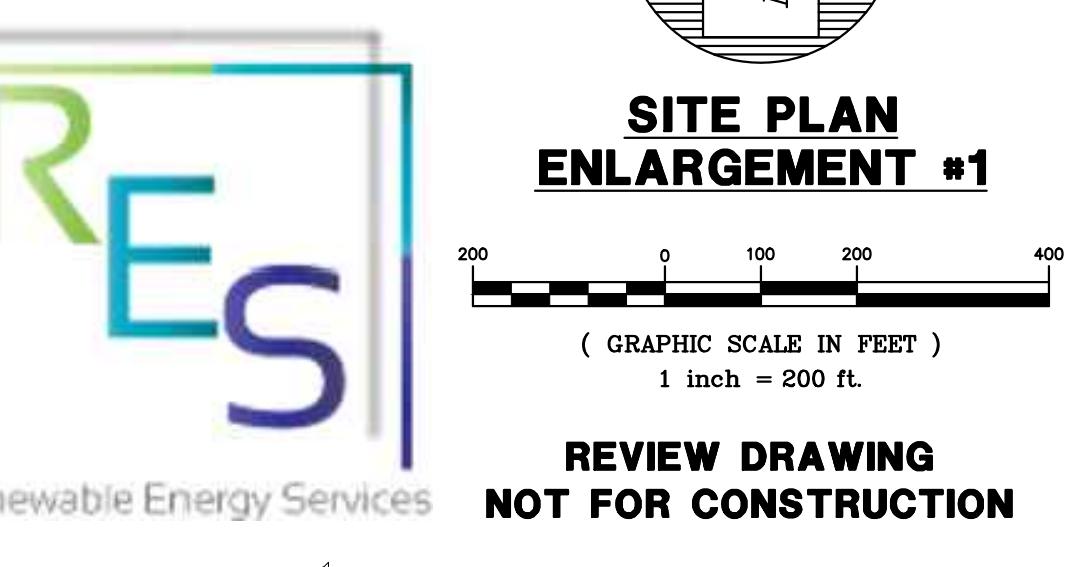
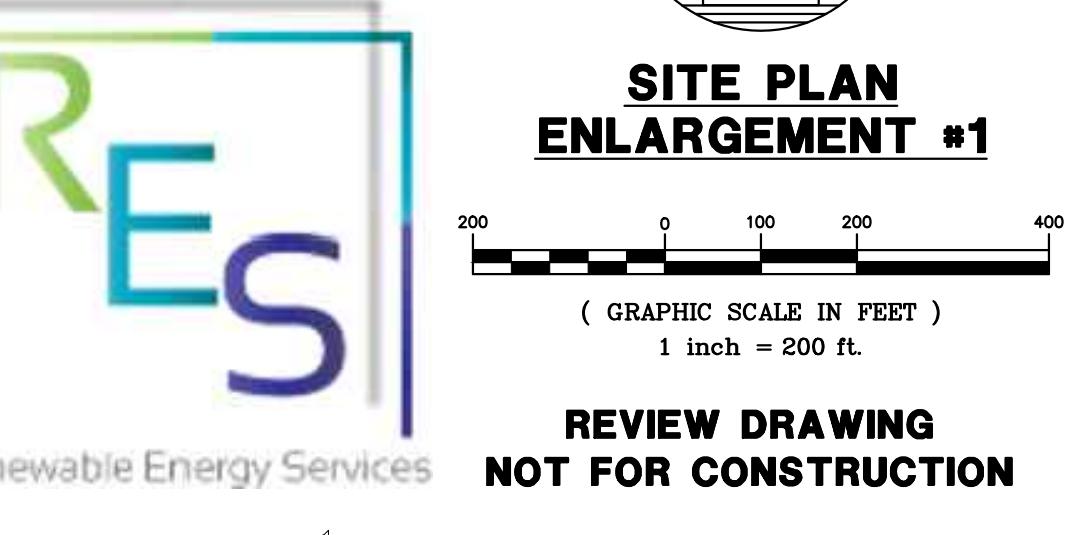
OB NUMBER: 118036.09
DATE: 25 FEB 20
SCALE: AS NOTED

SHEET
C1002



DRAWING LEGEND

SYMBOL/ABBREVIATION	EXISTING	PROPOSED	DESCRIPTION
—	—	—	PROPERTY BOUNDARY
—	—	—	ADJOINING PROPERTY BOUNDARY
—	—	—	RIGHT-OF-WAY LINE
—	—	—	EASEMENT LINE
—	—	—	PROPERTY SETBACK
—	—	—	COUNTY LINE
—	—	—	LEASE LIMITS
—	—	—	PERMANENT FENCE LINE
—	—	—	LANDSCAPE BUFFER
—	—	—	PERENNIAL STREAM CENTERLINE
—	—	—	INTERMITTENT STREAM CENTERLINE
—	—	—	WETLAND
—	—	—	SEDIMENT BASIN AREA
—	—	—	100-YEAR FLOODPLAIN
—	—	—	OVERHEAD ELECTRIC LINE/POLE/GUY WIRE



BALLENTINE
ASSOCIATES, P.A.
221 PROSPERITY ROAD,
CHAPEL HILL, NC 27514
(919) 949-1480

Corporate Seal
C328
North Carolina
Chapel Hill

NOT FOR CONSTRUCTION
036849
Engineering Services

DATE: 03 MAR 20
REVISIONS: PER LINCOLN COUNTY COMMENTS
NUM: 1

OWNER INFORMATION: RENEWABLE ENERGY SERVICES, 148 COBBLE RIDGE DRIVE, PITTSBORO, NC 27312
OWNERS REPRESENTATIVE: MATTHEW DELAFIELD, PH. (919) 637-1139, FAX EMAIL: mdelfield@e-services.com

ISSUED: 25 FEB 20
TO RES: 03 MAR 20
DATE: 25 FEB 20
TO RES: 03 MAR 20

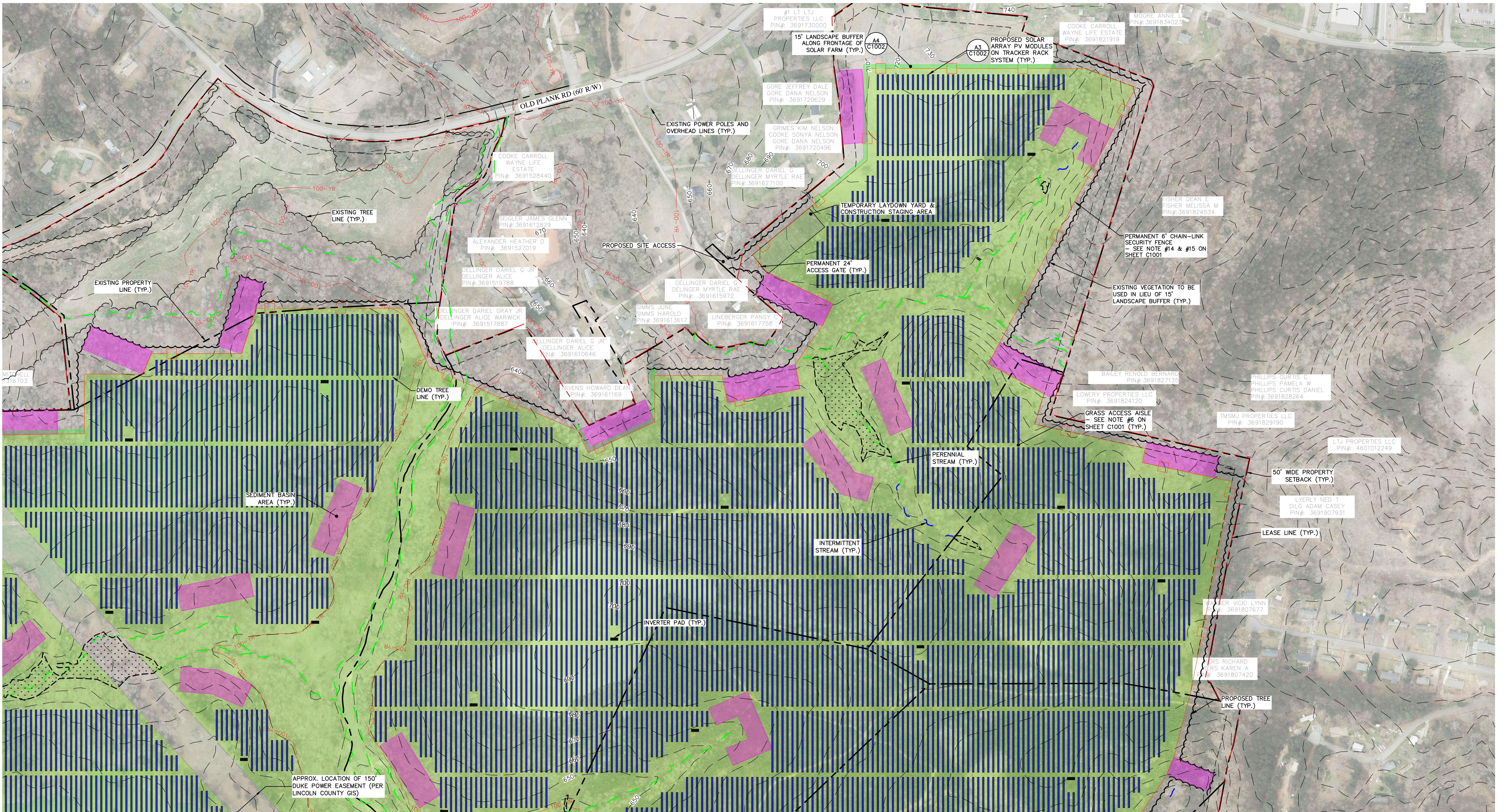
REVIEW DRAWING
NOT FOR CONSTRUCTION
SHEET: C1003

HORNET SOLAR, LLC
SOLAR ENERGY SYSTEM
LINCOLN COUNTY, NORTH CAROLINA
SITE PLAN DRAWINGS

JOB NUMBER: 118036.09
DATE: 25 FEB 20
SCALE: AS NOTED
DRAWN BY: J.B.M.
REVIEWED BY: A.R.S.

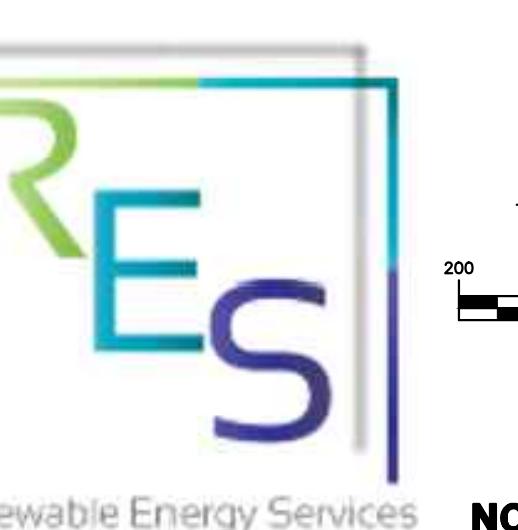
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C1003



DRAWING LEGEND

SYMBOL/ABBREVIATION	EXISTING	PROPOSED	DESCRIPTION
—	—	—	PROPERTY BOUNDARY
—	—	—	ADJOINING PROPERTY BOUNDARY
—	—	—	RIGHT-OF-WAY LINE
—	—	—	EASEMENT LINE
—	—	—	PROPERTY SETBACK
—	—	—	COUNTY LINE
—	—	—	LEASE LIMITS
—	—	—	PERMANENT FENCE LINE
—	—	—	LANDSCAPE BUFFER
—	—	—	PERENNIAL STREAM CENTERLINE
—	—	—	INTERMITTENT STREAM CENTERLINE
—	—	—	WETLAND
—	—	—	SEDIMENT BASIN AREA
—	—	—	100-YEAR FLOODPLAIN
—	—	—	OVERHEAD ELECTRIC LINE/POLE/GUY WIRE



**SITE PLAN
ENLARGEMENT #2**

200
0
100
200
400
(GRAPHIC SCALE IN FEET)
1 inch = 200 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
221 PROSPERITY ROAD, CHAPEL HILL, NC 27514
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03/04/2020

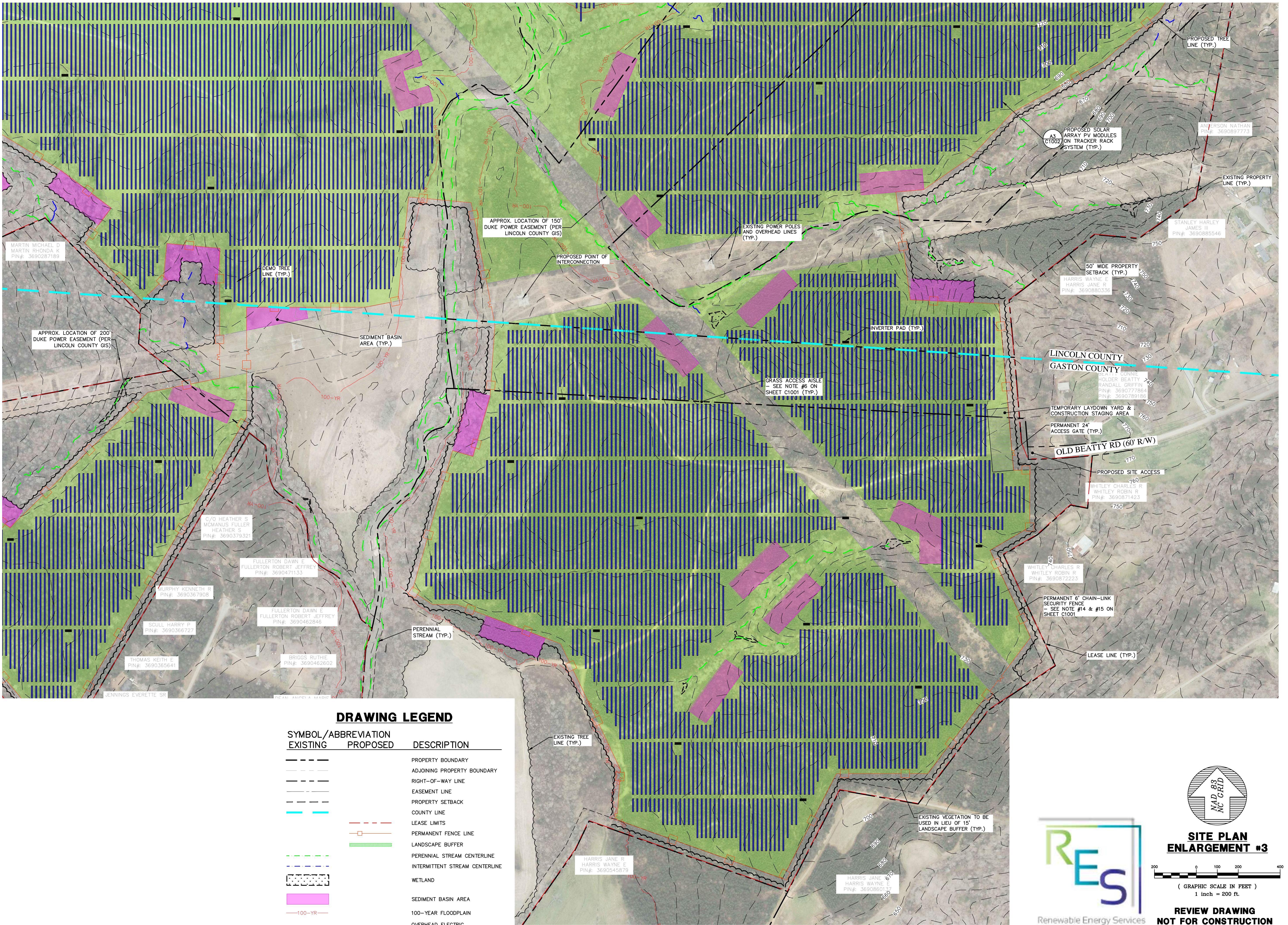
DATE	03 MAR 20
REVISIONS	PER LINCOLN COUNTY COMMENTS
NUM	△ PER LINCOLN COUNTY COMMENTS
ISSUED	25 FEB 20
TO RES	03 MAR 20
DATE	03 MAR 20
OWNER INFORMATION	RENEWABLE ENERGY SERVICES 148 COBBLE RIDGE DRIVE PITTSBORO, NC 27312
OWNERS REPRESENTATIVE:	MATTHEW DELAFIELD PH. (919) 637-1139 FAX EMAIL: mdelafield@e-services.com

**HORNET SOLAR, LLC
SOLAR ENERGY SYSTEM
LINCOLN COUNTY, NORTH CAROLINA
SITE PLAN DRAWINGS**

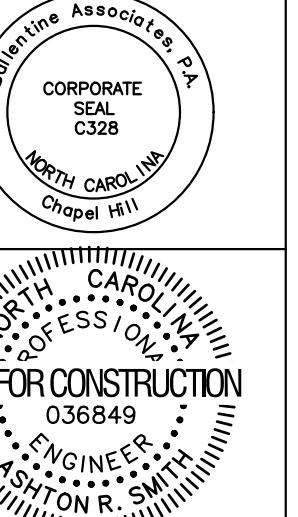
JOB NUMBER: 118036.09
DATE: 25 FEB 20
SCALE: AS NOTED
DRAWN BY: J.B.M.
REVIEWED BY: A.R.S.

SHEET

C1004



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ASSOCIATES, P.A.**
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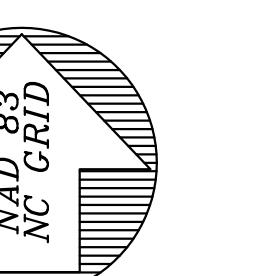


RESES	03 MAR 20					

TO

SOLAR ENERGY SYSTEM

LINCOLN COUNTY, NORTH CAROLINA



ITE PLAN ARRANGEMENT #3

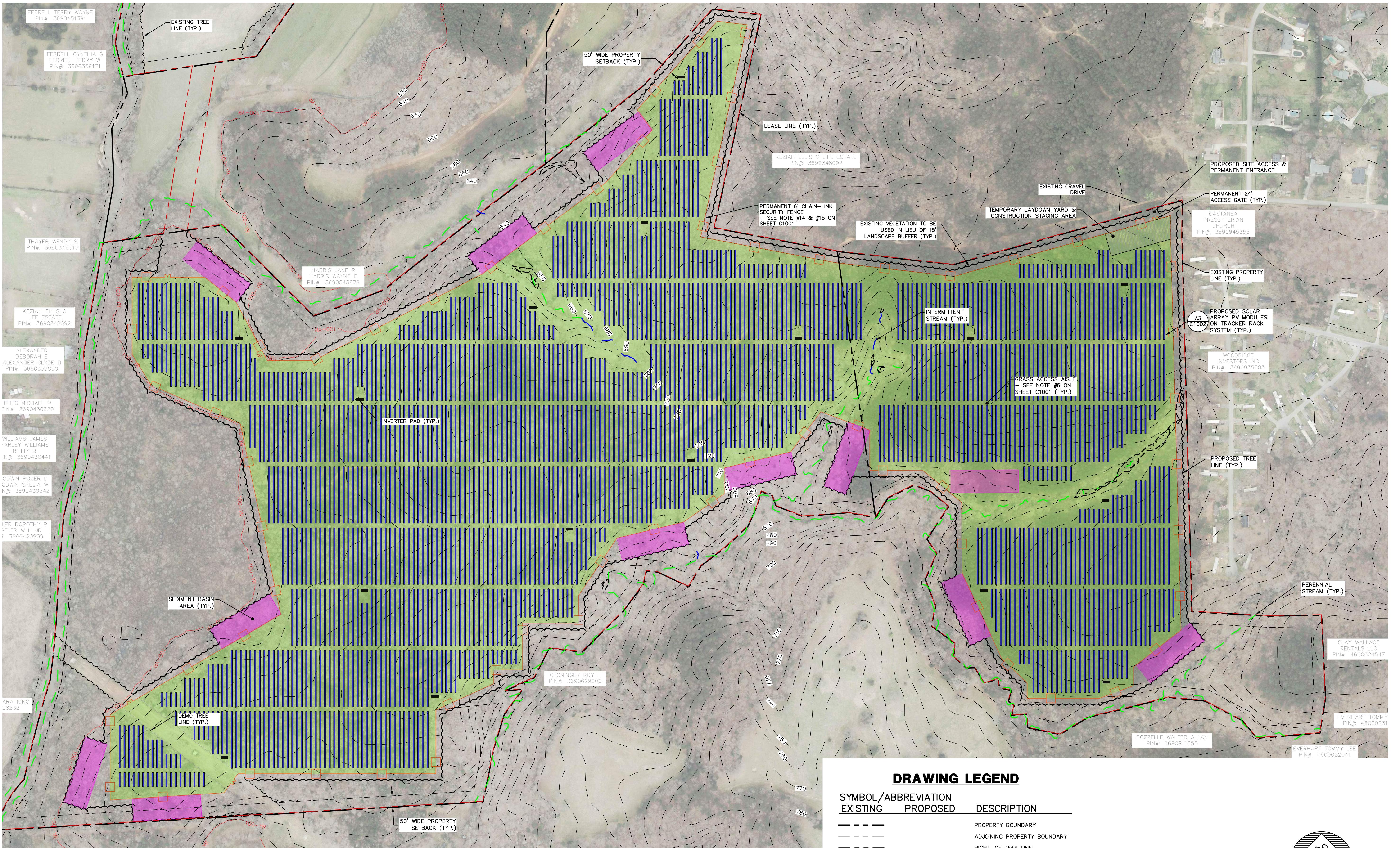
HIC SCALE IN FEET)

inch = 200 ft.

JUMBER: 118036.09
25 FEB 20
AS NOTED

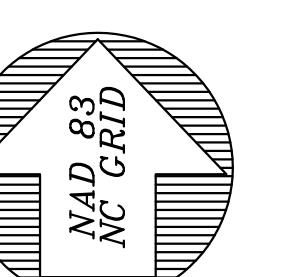
BY: J.B.M.
ED BY: A.R.S.

SHEET
C1005

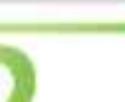


DRAWING LEGEND

SYMBOL/ABBREVIATION	PROPOSED	DESCRIPTION
— — —		PROPERTY BOUNDARY
— — —		ADJOINING PROPERTY BOUNDARY
— — —		RIGHT-OF-WAY LINE
— — —		EASEMENT LINE
— — —		PROPERTY SETBACK
— — —		COUNTY LINE
— — —	— — —	LEASE LIMITS
— — —	— — —	PERMANENT FENCE LINE
— — —	— — —	LANDSCAPE BUFFER
— — —		PERENNIAL STREAM CENTERLINE
— — —		INTERMITTENT STREAM CENTERLINE
— — —		WETLAND
— — —		SEDIMENT BASIN AREA
— — —		100-YEAR FLOODPLAIN
— — —		OVERHEAD ELECTRIC LINE/POLE/GUY WIRE



SITE PLAN MAGNEMENT #4



RES
renewable Energy Services

renewable Energy Services

VIEW DRAWING OR CONSTRUCTION

HORNET SOLAR, LLC
SOLAR ENERGY SYSTEM
LINCOLN COUNTY, NORTH CAROLINA

B NUMBER: 118036.09
TE: 25 FEB 20

SHEET

C1006