Conditional Use Permit Application

Enon Road Solar Farm

Stafford County, VA

Enon Road Solar Farm, LLC

July 6, 2022

Contents

1. Summary of Application

Enon Road Solar Farm, LLC ("the Applicant"), requests a Conditional Use Permit (CUP) for the construction and operation of Enon Road Solar Farm, a 3 megawatt (MW) alternating current utility-scale solar facility on private land spanning one parcel in Stafford County, Virginia. The Project will be sited on County parcel 45 127 (the "Property"). The Property is currently zoned as Agricultural. The Project is being developed by EsaSolar. EsaSolar is a solar energy development and engineering company headquartered in the Southeast with extensive experience in nearby North Carolina where the company successfully developed over forty 5 MW projects throughout the past decade, as well as five community solar farms in Halifax County.

The Project is expected to bring significant economic benefits to Stafford County, and the Applicant has designed the Project with the following considerations:

- The Project will utilize natural vegetation and topography that minimizes visibility from neighboring parcels. The Project design provides a minimum 75-foot setback from all public rights of way and main buildings on adjoining parcels; and a distance of at least 50 feet from adjacent property lines.

- The Property has been historically used for agriculture and the Project will not impact neighboring land uses in the area.

- The Project will produce the equivalent of up to 600 homes' worth of clean solar electricity.

- In addition to expected increase in real estate income on the property, the Applicant proposes providing substantial cash payments to the County in the Conditions of Approval. Projects of this scale are exempt from machinery and tools taxation by state law, but the Applicant is proposing to provide additional payments as part of the greater economic benefit of hosting the Project, and to offset any public costs related to the Project.

- At the end of its operational life, the Applicant will decommission the Project in accordance with the steps outlined in this application, and the conditions. As part of decommissioning, the Applicant will return the land to agriculture, or another use permitted by the Zoning Ordinance and as desired by the Property owner.

- The Project is made up largely of pervious surfaces. The Applicant will plant native grasses in between the rows of panels to manage stormwater and erosion as well as allow the site to return to agriculture after it is no longer operational.

- The Project is not located near a transmission line. Due to the small size and nature of the project, it will interconnect to a nearby distribution line (See Section 6).

2. Stafford County Conditional Use Permit Application

STAFFORD COUNTY
Department of Planning and Zoning

Application Submittal Checklist

- ☑ Completed **"Project Information & Primary Contacts"** form (Page 7)
- ☑ Signed **"Statements of Understanding"** from the owner(s) and applicant (Page 8)
- ☑ Signed and Notarized **Owner's Consent Statement** (if applicant/agent is not the owner)
- ☑ Completed **"General Information"** sheet (Page 9)
- ☑ Completed **"Review Fee Calculation"** sheet and appropriate **Fees** payable to "County of Stafford" (Page 10)
- ☑ Completed **"List of Adjoining Property Owners"** (Pages 12 & 13)
- ☑ Completed **"Application Affidavit"** (Pages 14 – 17)
- ☑ Completed **"Checklist for Generalized Development Plans"** (Pages 18 & 19)
- ☐ ~~Completed **"Transportation Impact Analysis Determination Form"**~~ (Page 20) N/A
- ☑ Proof that **Real Estate Taxes** have been paid
- ☑ Complete **Legal Description** of the area to be reclassified (Acreage must match Boundary Survey Plat)
- ☑ Completed **Impact Statement**
- ☐ ~~Completed **Transportation Impact Analysis (TIA)**, if required (Five (5) paper copies with electronic copies or ftp site)~~ N/A

PLATS AND PLANS

- ☑ **Boundary Survey Plat** of area subject to rezoning (with 3 copies at 8½" x 11" size)
- ☑ **Generalized Development Plan** (12 full-size copies at 24"x 36" size)

  * See **"Checklist for Generalized Development Plans"** (Pages 18 & 19)

RECEIVED	OFFICIALLY SUBMITTED
DATE:_____ INITIALS____	DATE:_____ INITIALS_____

STAFFORD COUNTY
Department of Planning and Zoning

Project Information & Primary Contacts

PROJECT INFORMATION — **PROJECT #** _____

Enon Road Solar Farm	28-35
PROJECT NAME	SECTION
275 Enon Rd, Fredericksburg, VA 22406	36.7687
ADDRESS (IF AVAILABLE)	TOTAL SITE ACREAGE
45 127	A-1 Agricultural
TAX MAP /PARCEL(S)	ZONING DISTRICT

The project site will be off of Enon Road (State Road 753) near the intersection of Enon Road and State Road.

LOCATION OF PROJECT 652. Access to the property will be approximately 1,265 feet on the South side of the road.

APPLICANT/AGENT (Provide attachment if Applicant and Agent differ) — Primary Contact Person ☑

Enon Road Solar Farm, LLC			EsaSolar	
NAME			COMPANY	
2250 Lucien Way, Suite 305	Maitland		Florida	32751
ADDRESS	CITY		STATE	ZIP
(954) 658-4531			jvandenbroeck@esa-solar.com	
PHONE NUMBER	FAX NUMBER		EMAIL ADDRESS	

OWNER (Provide attachments if multiple owners) — Primary Contact Person ☐

Steven Jones			Soaring Aircraft Sales, LLC	
NAME			COMPANY	
3110 Voyage Dr	Stafford		Virginia	22554-2634
ADDRESS	CITY		STATE	ZIP
540-220-4733			sjones1331@aol.com	
PHONE NUMBER	FAX NUMBER		EMAIL ADDRESS	

PROFESSIONAL (Engineer, Surveyor, etc.) — Primary Contact Person ☐

David K. Click			Uneclipsed Energy, PLLC	
NAME			COMPANY	
2250 Lucien Way, Suite 305	Maitland		Florida	32751
ADDRESS	CITY		STATE	ZIP
(857) 998-1826			dclick@esa-solar.com	
PHONE NUMBER	FAX NUMBER		EMAIL ADDRESS	

General Information

Clearly indicate all information that applies to this project:

DETAILED DESCRIPTION OF PROJECT

Please see attached (Section 6 - Project Narrative)

INFORMATION FOR FEE CALCULATIONS

15.8 # of Acres

Type of Conditional Use Permit:

- ☑ Standard Conditional Use Permit (including amendments)
- ☐ Minor Conditional Use Permit Amendment *
- ☐ Minor Conditional Use Permit Amendment (submitted simultaneously with a Minor Proffer Amendment Application) *

* See Background Information on page 3 to determine if the request qualifies as a minor amendment.

INFORMATIONAL

Previous Resolution # N/A

Zoning District Agricultural (A-1)

Proposed Use(s) Public Utility Facility

Statements of Understanding

I, as owner of the property subject to this application, do hereby certify that I have read and understand the requirements for the submission of a conditional use permit as provided under the Stafford County Code, and further, that this submittal is in compliance with the requirements and applicable provisions of the Stafford County Zoning Ordinance, Chapter 28 of the Stafford County Code.

Signature of Owner	Printed Name	Date
Steven Jones	STEVEN JONES	1 JULY 2022

STATE OF Virginia
COUNTY OF Stafford

The foregoing instrument was acknowledged before me this 1 day of July, 2022 by Steven Jones, as the President for Soaring Aircraft Sales, L.L.C., a Virginia limited liability company, on behalf of the company.

[AFFIX NOTARIAL STAMP OR SEAL]

MIRANDA CATHERINE COCHRAN
Notary Public
Commonwealth of Virginia
Registration No. 7960329
My Commission Expires Mar 31, 2025

M. C.
Notary Public Signature

Printed Name: Miranda Cochran

My Commission Expires: 03/31/2025

Statements of Understanding

I, as applicant or agent for the owner(s) of the property subject to this application, do hereby certify that I have read and understand the requirements for the submission of a conditional use permit as provided under the Stafford County Code, and further, that this submittal is in compliance with the requirements and applicable provisions of the Stafford County Zoning Ordinance, Chapter 28 of the Stafford County Code.

Signature of Applicant/Agent | JUSTIN VANDENBROECK (Printed Name) | 7/5/22 (Date)

STATE OF Florida
COUNTY OF Orange

The foregoing instrument was acknowledged before me this 5 day of July, 2022 by Justin Vandenbroeck, as the Manager for Enon Road Solar Farm, LLC, a Delaware limited liability company, on behalf of the company.

[AFFIX NOTARIAL STAMP OR SEAL]

CARA ROMAINE
Notary Public
State of Florida
Comm# HH260962
Expires 5/4/2026

Cara Romaine
Notary Public Signature

Printed Name: Cara Romaine

My Commission Expires: 5/4/2026

STAFFORD COUNTY
Department of Planning and Zoning

Review Fee Calculations

The County review fee calculations are divided into two sections. Each section is based on a different type of application. Determine the application fee by filling out the one section that applies.

Section I. Standard Conditional Use Permit:

A. Base Fee: (Required) ..... $ 9,750.00

B. General Fee: (If greater than 5 acres)

(15.8 Acres – 5) X $125 ..... $ 1,350.00

C. Fire & Rescue Review Fee (required)..... $ 95.00

D. Utilities Department Review Fee (required)..... $ 95.00

E. Public Works Review Fee (required)..... $ 120.00

F. Traffic Impact Analysis Review Fee: (If TIA required)
Volume <1,000 VPD $200.00
Volume >1,000 VPD .....$400.00..... $ N/A

G. Adjacent Property Notification (required):

(14 Adjacent properties) X $6.48 ..... $ 90.72

Sub-total (Add appropriate amounts from lines A thru G above)..... $ 11,500.72

H. Technology Fee (sub-total x 2.75% or 0.0275)..... $ 316.27

TOTAL (Sub-total + H. Technology Fee)..... $ 11,816.99

Section II. Minor Conditional Use Permit Amendment: N/A

A. General Fee: ..... $ 6,190.00

B. Adjacent Property Notification (required):

(_____Adjacent properties) X $6.48 ..... $_____

Sub-total (Add lines A and B) ..... $_____

C. Technology Fee (sub-total x 2.75% or 0.0275)..... $_____

TOTAL (Sub-total + C. Technology Fee)..... $_____

Section III. Minor Conditional Use Permit Amendment (when submitted simultaneously with a Minor Proffer Amendment Application): N/A

A. General Fee: ..... $ 3,095.00

B. Adjacent Property Notification (required):

(_____Adjacent properties) X $6.48 ..... $_____

Sub-total (Add lines A and B) ..... $_____

C. Technology Fee (sub-total x 2.75% or 0.0275)..... $_____

TOTAL (Sub-total + C. Technology Fee)..... $_____

MAKE CHECK PAYABLE TO "STAFFORD COUNTY"

- **If an application is withdrawn prior to the first public hearing, fifty (50) percent of the amount of the application fee may be refunded to the applicant.**
- **If an application is withdrawn after the first public hearing, the application fee is non-refundable.**

List of Adjoining Property Owners

The applicant is required to provide a list of the owners as shown on the current real estate tax assessment books of all abutting properties and properties immediately across the street or road from the property to be rezoned or issued a Conditional Use Permit. If the application requests a rezoning of only a portion of the parcel or a Conditional Use Permit on only a portion of the parcel, the entire parcel must be the basis for the below listing.

Provide additional pages if needed. Please See Attached (Section 5 - List of Adjoining Property Owners)

TAX MAP / PARCEL _____ NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TAX MAP / PARCEL _____ NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TAX MAP / PARCEL _____ NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

STAFFORD COUNTY
Department of Planning and Zoning

Application Affidavit

This form to be filed with:

STAFFORD COUNTY
BOARD OF SUPERVISORS

1300 COURTHOUSE ROAD
STAFFORD, VIRGINIA 22555

Internal Use Only	
Project Name:	
A/P #:	
Date:	

All applicants for a special exception, a special use permit, conditional use permit, amendment to the zoning ordinance or variance shall make complete disclosure of the equitable ownership of the real estate involved in the application, including in the case of corporate ownership, limited liability company ownership or similar business ownership, the name of stockholders, officers, managing partners, general partners, owners and members, and in any case the names and addresses of all of the real parties in interest. The requirement of listing names of stockholders, officers and directors shall not apply to a corporation whose stock is traded on a national or local stock exchange and having more than 500 shareholders. In the event the ownership of the involved real estate changes in any respect during the time the application is pending, the applicant shall make complete disclosure of the new equitable ownership of the real estate involved in the application as required herein. If the applicant is a contract purchaser, the ownership information required herein shall be provided for the contract purchaser in addition to the owner of the real estate involved in the application. This section applies to applications before the board of supervisors, planning commission and board of zoning appeals.

See Section 15.2-2289 for State Enabling Authority

1. Applicant information

Name of Applicant Enon Road Solar Farm, LLC
Name of Company EsaSolar

Applicant Address 2250 Lucien Way, Suite 305
Maitland, FL 32751

Applicant's Signature _____

Name of Agent Justin Vandenbroeck

Address of Agent 2250 Lucien Way, Suite 305, Maitland, FL 32751

2. Type of Application

- ☑ **Conditional Use Permit**
- ☐ **Variance**
- ☐ **Rezoning**
- ☐ **Special Exception**

Project Name: _____
A/P #: _____
Date: _____

Application Affidavit
Page 2
Applicant: Enon Road Solar Farm, LLC

3. Property Information

Assessor's Parcel(s) 45 127

Address 275 Enon Road

4. Unless the equitable ownership is a corporation, limited liability company or similar business ownership, list all equitable owners of the property.

Name of owners	Address
Soaring Aircraft Sales, LLC	3110 Voyage Drive, Stafford, VA 22554

5. If the equitable ownership of the property is a corporation, limited liability company or similar business ownership, list all officers, managing partners, general partners, share holders, owners and members. This provision shall not apply if the corporation is listed on a national or local stock exchange and has more than 500 shareholders.

Name of Members	Address
Steven Jones	275 Enon Road

6. Unless the applicant is a contract purchaser and is a corporation, limited liability company or similar business ownership, list all individuals involved with the purchase of the property.

Name of Members	Address
N/A	

STAFFORD COUNTY
Department of Planning and Zoning

Application Affidavit
Page 3
Applicant: Enon Road Solar Farm, LLC

Project Name: _____
A/P #: _____
Date: _____

7. If the applicant is a contract purchaser and is a corporation, limited liability company or similar business ownership, list all officers, managing partners, general partners, share holders, owners and members. This provision shall not apply if the corporation is listed on a national or local stock exchange and has more than 500 share holders

Name of Members	
EsaSolar	2250 Lucien Way, Suite 305, Maitland, FL 32751

8. Have all individuals listed on this affidavit been notified of the purpose of the application?

☑ Yes ☐ No

9. If #8 is No, list all individuals who have not been notified about this application plus submit the cost required for the Department of Planning and Zoning or Code Administration to send certified letters notifying those listed below of this application prior to the public hearing.

Name	Address, including zip code, no P.O. Box please
N/A	

Number of owners to be notified: _____X
Cost for certified letters $_____ (cost as of the day of submittal)
Total due: $_____ (Make checks payable to County of Stafford)

Please submit a check in the amount due with this application to cover the cost of serving the individuals listed in this section.

Project Name: _____
A/P #: _____
Date: _____

Application Affidavit
Page 4
Applicant: Enon Road Solar Farm, LLC

10. Affirmation & Witness

I hereby make oath or affirmation that the contents of this affidavit are true and correct to the best of my knowledge, information and belief. In the event the ownership of the involved real estate changes during the time the application is pending, I shall make complete disclosure of the new equitable ownership of the real estate involved in the application as required herein.

Printed name of Signer STEVEN A. JONES

Corporate Office of Signer PRESIDENT

Signature _____

Date 1 JULY 2022

COMMONWEALTH OF VIRGINIA
COUNTY OF STAFFORD, to wit:

The forgoing affidavit was acknowledged before me this 1 day of July, 2022 by Steven Jones owner/applicant.

My commission expires: 03/31/2025

_____
Notary Public

MIRANDA CATHERINE COCHRAN
Notary Public
Commonwealth of Virginia
Registration No. 7960329
My Commission Expires Mar 31, 2025

STAFFORD COUNTY
Department of Planning and Zoning

Checklist for Generalized Development Plans (GDP)

In accordance with Section 28-224 of the Stafford County Code, when a GDP involves engineering, architecture, urban land use planning or design, landscape architecture, or surveying, such work shall be performed by persons qualified and authorized to perform such professional work, in accordance with applicable provisions of the Code of Virginia.

N/A	COMPLETE	
		Sec 28-225(1)
☐	☑	Date of drawing,
☐	☑	true north arrow,
☐	☑	scale,
☐	☑	legend for all symbols used,
☐	☑	name of the applicant, EJA
☐	☑	name of the owner,
☐	☑	name of the development,
☐	☑	person preparing the drawing, O
☐	☐	match lines if applicable;
		Sec 28-225(2)
☐	☑	Boundaries of the area covered by the application,
☐	☑	vicinity map showing the general location of the proposed development, major roads and existing subdivisions at a scale of one inch equals two thousand (2,000) feet; 1" = 2,000 ft
		Sec 28-225(3)
☐	☑	Approximate locations and identification of any easements and rights-of-way on or abutting the site;
		Sec 28-225(4)
☐	☑	Approximate location of each existing and proposed structure on the site
☑	☐	the number of stories,
☐	☑	height,
☑	☐	roof line,
☐	☑	gross floor areas and 'impervious area'?
☑	☐	location of building entrances and exits;
		Sec 28-225(5)
☐	☑	Identification and location of uses and structures on all abutting properties;
		Sec 28-225(6)
☐	☑	Approximate location of all existing and proposed parking and loading areas,
☐	☑	outdoor trash storage,
☑	☐	lighting facilities, and
☑	☐	pedestrian walkways;
		Sec 28-225(7)
☐	☑	Approximate location, height and type of each existing and proposed wall, fence, and other types of screening;

120
x23
2760

16ft
x40
6,720

9,480

Surrounding Plans

Checklist for Generalized Development Plans (continued)

N/A	COMPLETE	
		Sec 28-225(8)
☐	☑	Approximate location and description of all proposed landscaping;
		Sec 28-225(9)
☑	☐	Approximate location, height and dimensions of all proposed signage on site;
		Sec 28-225(10)
☐	☑	Approximate location of all existing drainage ways, floodplains and wetlands on site;
		Sec 28-225(11)
☐	☑	Approximate location of all common open space, recreational areas and bufferyards;
		Sec 28-225(12)
☑	☐	Where the site abuts any tidal water body or impoundments, the approximate high water line, low water line, top of bank and toe of slope;
		Sec 28-225(13)
☐	☑	Approximate location and identification of all significant natural or noteworthy features including, but not limited to, historic and archeological sites, cemeteries, existing trees with a trunk diameter greater than six (6) inches DBH

Waiver of GDP Requirements

In accordance with Section 28-223 of the Stafford County Code, the Director of Planning and Zoning may waive the requirement for the submission of a GDP if the application meets one of the following standards:

(1) There will be less than two thousand five hundred (2,500) square feet of total land disturbance on lots or parcels of less than ten thousand (10,000) square feet.

(2) For single-family dwellings intended for the occupancy of the applicant and where there will be less than five thousand (5,000) square feet of land disturbance.

(3) For specific items of information when, in the opinion of the director of planning, their application to the subject property does not serve the purpose and intent of this article.

A request for a waiver shall be made in writing to the Director of Planning and Zoning identifying the sections in which you are requesting a waiver and the reason for the request.

STAFFORD COUNTY
Department of Planning and Zoning

N/A Less than 150 trips a day

CONDITIONAL USE PERMIT TRANSPORTATION IMPACT ANALYSIS DETERMINATION

RECEIVED BUT NOT OFFICIALLY SUBMITTED
DATE:_____ INITIALS_____

OFFICIALLY SUBMITTED

DATE:_____ INITIALS_____

Name of development _____
Type of development_____
Parcel #_____

Traffic Volume Calculations

This site generates:

_____VPH (insert the highest VPH)

_____VPD on state controlled highways (insert highest volume).

_____Peak AM (VPH)

_____Peak PM (VPH)

_____Peak Saturday (VPH)

_____VPD highest intensity*

Attach a page showing the calculations and the ITE trip generation codes to this form.

Minimum Thresholds to submit a TIA
Any proposal that generates 150 or more vehicle trips per day above the existing use, and the site meets the VDOT requirements for TIAs under 24 VAC 30-155 or Stafford County Rezoning TIA requirements. See "VDOT Traffic Impact Analysis Requirements" table on next page.

Trip Generation Calculation Guidelines

- Traffic volumes shall be based on the rates or equations published in the latest edition of the Institute of Transportation Engineers Trip Generation.
- If a site has multiple entrances to highways, volumes on all entrances shall be combined for the purposes of this determination.
- If the site does not have direct access to a state maintained road, the site's connection is where the site connects to the state highway system.
- Traffic volumes shall NOT be reduced through internal capture rates, pass by rates, or any other reduction methods.
- For redevelopment sites only: when the existing use is to be developed at a higher intensity, trips currently generated by the existing development that will be removed may be deducted from the total trips that will be generated by the proposed land use.
- When rezoning, use the highest possible traffic generating use unless development is limited by proffer to less than the possible highest traffic generation.

For development proposals that generate 1000 or more vehicle trips per peak hour the applicant shall request a scope of work meeting with VDOT and Stafford County Office of Transportation to discuss the required elements of a traffic impact analysis.

*The highest intensity use is the highest possible use allowable under the zoning requirements for the entire property should it be developed to its fullest extent possible under the current building guidelines. The only exception is if proffers limit the area and type of uses.

VDOT Traffic Impact Analysis Requirements

Process		Threshold	Review Process*	Fee**
Comprehensive Plan and Plan Amendments (including small area plans)		5,000 VPD on state-controlled highways, or Major change to infrastructure / transportation facilities	Application submitted to VDOT for review and comment VDOT may request a meeting with the locality within 30 days Review to be completed in 90 days or later if mutually agreed	$1000 covers first and second review. No fee if initiated by locality or public agency. No fee for citizens' organization or neighborhood association proposing plan amendments.
Rezoning	Residential Low Volume Road Submission	400 VPD AND exceeds the current traffic volume on a state controlled highway	VDOT or local TIA (certified by VDOT) and Application submitted to VDOT for review and comment VDOT may request a meeting with the locality & applicant within 45 days Review to be completed in 120 days if VDOT requests a meeting Otherwise review to be completed in 45 days NOTE: When a related comprehensive plan revision and rezoning proposal are being considered concurrently for the same geographical area, then only a rezoning TIA package is required.	For first and second review: $250 - Low Volume Rd $1000 – All other submissions No fee if initiated by locality or public agency No fee if using a VDOT TIA prepared for a small area plan
	All Other Land Uses including residential	5,000 VPD on state controlled highways, or 5,000 VPD on locality maintained streets AND within 3000 feet of a state controlled highway		

* For proposals generating less than 1000VPH the locality and/or applicant may request a Scope of Work Meeting with VDOT. For proposals generating 1000 VPH or more the locality and/or applicant shall hold a Scope of Work Meeting with VDOT.

** Third or subsequent submissions require additional fee as though they were an initial submission.

3. Comprehensive Plan Compliance Review Application

STAFFORD COUNTY
Department of Planning and Zoning

Application Submittal Checklist

☑ Completed **"Project Information & Primary Contacts"** form (Page 3)

☑ Signed **"Statements of Understanding"** from the owner(s) and applicant (Page 4)

☑ Completed **"General Information"** sheet (Pages 5 & 6)

☑ Completed **"Review Fee Calculation"** sheet and appropriate fees payable to "County of Stafford" and "Virginia Department of Transportation" (if applicable) (Page 7)

☑ Completed **"List of Adjoining Property Owners"** (Pages 8 & 9)

☑ **Site Layout Plans** (12 Sets)

Applications for the **Extension of Water and/or Sewer outside the Urban Services Area** shall also include: N/A

☐ ~~Conceptual sewer and/or water line layout plan~~

Applications for **Telecommunication Facilities** shall also include: N/A

☐ ~~Propagation Maps showing the existing and proposed network coverage area (12 color copies)~~

☐ ~~Profile or elevation views of the Telecommunication facility or structure being used to support telecommunication equipment, showing all proposed and future antenna locations (12 sets)~~

RECEIVED	OFFICIALLY SUBMITTED
DATE:_____ INITIALS____	DATE:_____ INITIALS_____

Optional Application Materials:

Although not required, the following additional materials are requested to be included with the initial application submission, if available, to assist in the review process.

1. Electronic Version of any plans, surveys, and illustrations (a pdf on a CD, DVD, sent via email, or through ftp site is acceptable)

STAFFORD COUNTY
Department of Planning and Zoning

Project Information & Primary Contacts

PROJECT INFORMATION

PROJECT # _____

Enon Road Solar Farm	28-35
PROJECT NAME	SECTION
275 Enon Rd, Fredericksburg, VA 22406	36.7687
ADDRESS (IF AVAILABLE)	TOTAL SITE ACREAGE
45 127	A-1 Agricultural
TAX MAP /PARCEL(S)	ZONING DISTRICT

The project site will be off of Enon Road (State Road 753) near the intersection of Enon Road and State Road 652. Access to the property will be approximately 1,265 feet on the South side of the road.

LOCATION OF PROJECT

APPLICANT/AGENT (Provide attachment if Applicant and Agent differ)

Primary Contact Person ☑

Enon Road Solar Farm, LLC		EsaSolar	
NAME		COMPANY	
2250 Lucien Way, Suite 305	Maitland	Florida	32751
ADDRESS	CITY	STATE	ZIP
(954) 658-4531		jvandenbroeck@esa-solar.com	
PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS	

OWNER (Provide attachments if multiple owners)

Primary Contact Person ☐

Steven Jones		Soaring Aircraft Sales, LLC	
NAME		COMPANY	
3110 Voyage Drive	Stafford	Virginia	22554-2634
ADDRESS	CITY	STATE	ZIP
540-220-4733		sjones1331@aol.com	
PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS	

PROFESSIONAL (Engineer, Surveyor, etc.)

Primary Contact Person ☐

David K. Click		Uneclipsed Energy, PLLC	
NAME		COMPANY	
2250 Lucien Way, Suite 305	Maitland	Florida	32751
ADDRESS	CITY	STATE	ZIP
(857) 998-1826		dclick@esa-solar.com	
PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS	

Statements of Understanding

I, as owner of the property subject to this application, do hereby certify that I have read and understand the requirements for the submission of a conditional use permit as provided under the Stafford County Code, and further, that this submittal is in compliance with the requirements and applicable provisions of the Stafford County Zoning Ordinance, Chapter 28 of the Stafford County Code.

Steven T Jones — Signature of Owner

STEVEN JONES — Printed Name

1 JULY 2022 — Date

STATE OF Virginia

COUNTY OF Stafford

The foregoing instrument was acknowledged before me this 1 day of July, 2022 by Steven Jones, as the President for Soaring Aircraft Sales, L.L.C., a Virginia limited liability company, on behalf of the company.

[AFFIX NOTARIAL STAMP OR SEAL]

MIRANDA CATHERINE COCHRAN
Notary Public
Commonwealth of Virginia
Registration No. 7960329
My Commission Expires Mar 31, 2025

M. C. — Notary Public Signature

Printed Name: Miranda Cochran

My Commission Expires: 03/31/2025

Statements of Understanding

I, as applicant or agent for the owner(s) of the property subject to this application, do hereby certify that I have read and understand the requirements for the submission of a conditional use permit as provided under the Stafford County Code, and further, that this submittal is in compliance with the requirements and applicable provisions of the Stafford County Zoning Ordinance, Chapter 28 of the Stafford County Code.

Signature of Applicant/Agent | JUSTIN VANDENBROECK (Printed Name) | 7/5/22 (Date)

STATE OF Florida
COUNTY OF Orange

The foregoing instrument was acknowledged before me this 5 day of July, 2022 by Justin Vandenbroeck, as the manager for Enon Road Solar Farm, LLC, a Delaware limited liability company, on behalf of the company.

[AFFIX NOTARIAL STAMP OR SEAL]

CARA ROMAINE
Notary Public
State of Florida
Comm# HH260962
Expires 5/4/2026

Cara Romaine
Notary Public Signature

Printed Name: Cara Romaine

My Commission Expires: 5/4/2026

STAFFORD COUNTY
Department of Planning and Zoning

General Information

CLEARLY INDICATE ALL INFORMATION THAT APPLIES TO THIS PROJECT:

NAME OF PROJECT: Enon Road Solar Farm, LLC SECTION: 28-35

Is this application submitted in conjunction with another application? ☑ Yes ☐ No

If YES, application name or number (if available): Enon Road Solar Farm, LLC (Conditional Use Permit Application)

COMPREHENSIVE PLAN LAND USE DESIGNATION: Public Facility

FEATURE REQUIRING REVIEW FOR COMPLIANCE WITH THE COMPREHENSIVE PLAN:

- ☐ Extension of sewer outside of the Urban Service Area (complete additional information)
- ☐ Telecommunication facility or collocation of telecommunication antennas on a structure which is not a telecommunication facility. (complete additional information)
- ☐ New or relocation of a street, connection or change to existing street, not identified on the Transportation Plan or not shown on a Preliminary Subdivision or Site Plan approved by the Planning Commission.
- ☐ Public Park or Area
- ☐ Public Building or Structure
- ☑ Public Utilities Facilities
- ☐ Public Service Corporation Facility
- ☐ Other: _____

DETAILED DESCRIPTION AND LOCATION OF PROJECT/FEATURE:

Enon Road Solar Farm, LLC will be a 3 MW Utility-Scale Solar Farm located on approximately 15.8 acres. The project site will be off of Enon Road (State Road 753) near the intersection of Enon Road and State Road 652. Access to the property will be approximately 1,265 feet on the South side of the road. See attached for more information. (See Section 6 - Project Narrative)

COMPLETE ADDITIONAL INFORMATION IF APPLICABLE:

FOR EXTENSION OF SEWER OUTSIDE OF THE URBAN SERVICE AREA:

Number of lots connecting onto sewer: N/A

Linear feet from existing sewer: N/A

Connects to existing sewer outside of the Urban Service Area? ☐ Yes ☑ No

Will sewer extend outside the limits of the site? ☐ Yes ☑ No

If yes, how many existing dwellings would have access to the sewer? _____

Pump station required? ☐ Yes ☑ No

Type of proposed sewer:

☐ Gravity

☐ Low Pressure

Type: ☐ Grinder

☐ Ejector

☐ Other: _____

FOR TELECOMMUNICATION FACILITIES: N/A

☐ New telecommunication facility

Height of tower: _____

Type of tower: ☐ Monopole

☐ Self-supporting lattice

☐ Guide wire

☐ Stealth

☐ Other; _____

☐ Collocation on existing structure other than a telecommunication facility

Type of structure: _____

Height of structure (without antennas): _____

Total height of structure with antennas (not including lightning rod): _____

Number of antennas: _____

Telecommunication ground equipment? ☐ Yes ☐ No

Within existing compound? ☐ Yes ☐ No

Type of ground equipment: ☐ Unmanned shelter

☐ Cabinets

Dimensions of telecommunication ground equipment: _____

Height of the telecommunication ground equipment: _____

STAFFORD COUNTY
Department of Planning and Zoning

Review Fee Calculations

A. Application Fee:	$ 300.00
B. Technology Fee (Application Fee x 2.75% or 0.0275).....	$ 8.25
**TOTAL (Add lines A and B)..... **	**$ 308.25**

MAKE CHECK PAYABLE TO "STAFFORD COUNTY"

Note: The application fees are for the administrative process and review of this application and do not constitute an approval.

STAFFORD COUNTY
Department of Planning and Zoning

List of Adjoining Property Owners

Provide a list of the owners as shown on the current real estate tax assessment books of all abutting properties and properties immediately across the street or road from the property subject to this application. If the application applies to only a portion of a parcel, the entire parcel must be the basis for the below listing.

Provide additional pages if needed. Please see attached (See Section 5 - List of Adjoining Neighbors)

TAX MAP / PARCEL _____ NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TAX MAP / PARCEL _____ NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TAX MAP / PARCEL _____ NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

4. Letter of Owner's Consent

LETTER OF CONSENT FORM FOR STAFFORD COUNTY, VIRGINIA

PARCEL ID: 45 127

MAILING ADDRESS: 3110 Voyage Drive, Stafford, VA 22554-2634

PROPERTY OWNER: Soaring Aircraft Sales, LLC

The undersigned, registered property owner of the above noted property do hereby authorize Enon Road Solar Farm, LLC to act on my behalf and take all actions with necessary under Stafford County's Zoning Ordinance for the development of a Solar Farm.

Telephone: 540-220-4733

I hereby certify the above information submitted in this application is true and accurate to the best of my knowledge.

IN WITNESS WHEREOF, the Parties have executed this Letter of Consent Form as of the Effective Date.

PROPERTY OWNER:

Soaring Aircraft Sales, L.L.C.,
A Virginia limited liability company

By: Steven A Jones

Printed Name: STEVEN A. JONES

Title: PRESIDENT

STATE OF Virginia
COUNTY OF Stafford

The foregoing instrument was acknowledged before me this 1 day of July, 2022 by Steven Jones, as the President for Soaring Aircraft Sales, L.L.C., a Virginia limited liability company, on behalf of the company.

[AFFIX NOTARIAL STAMP OR SEAL]

MIRANDA CATHERINE COCHRAN
Notary Public
Commonwealth of Virginia
Registration No. 7960329
My Commission Expires Mar 31, 2025

MCa.
Notary Public Signature

Printed Name: Miranda Cochran

My Commission Expires: 03/31/2025

5. List of Adjoining Property Owners

Property Owner	Mailing Address	City, State, and Zip Code	map / Parcel Num
Benzon Robert Ellen S	798 Truslow Rd	Fredericksburg, VA 22406	45 127H
County Of Stafford	PO Box 339	Stafford VA 22555	45 127K
Hurley Harry T	449 Sunset Drive	Hallendale Beach, FL 33009	45 127F
Stafford County Virginia	PO Box 339	Stafford, VA 22555	45 127C
Cline David C Iv	415 Enon Rd	Fredericksburg, VA 22406	45 127E
Trustees Of Hulls Memorial Baptist	420 Enon Rd	Fredericksburg, VA 22406	45 120A
Willis David W Gail C	430 Enon Rd	Fredericksburg, VA 22406	45J 1 1
Mason Samantha Nicole	446 Enon Rd	Fredericksburg, VA 22406	45J 1 2
Riley Michael C Sharon C	452 Enon Rd	Fredericksburg, VA 22406	45J 1 3
Lynn Carl S III Ruby	466 Enon Rd	Fredericksburg, VA 22406	45J 1 4
Mcwhirt Everett V Sr & Peggy A Trust	809 Truslow Rd	Fredericksburg, VA 22406	45 118
Mcwhirt Everett V Sr & Peggy A Trust	809 Truslow Rd	Fredericksburg, VA 22406	45 118
Stafford Junction Inc	791 Truslow Rd	Fredericksburg, VA 22406	45 116
County Of Stafford	PO Box 339	Stafford, VA 22555	45 127G

6. Project Narrative

The Applicant requests a Conditional Use Permit (CUP) for Enon Road Solar Farm for the construction and operation of a 3 MW alternating current (ac) Utility Scale solar facility (the Project) on approximately 15.8 acres of private land located in Stafford County, Virginia (the Property). This Property is zoned Agricultural, and the current use of the Property is Agricultural.

This proposed project has the potential to add 3 MW ac of renewable energy to Dominion Energy Virginia's power grid through participation in the Virginia Shared Solar Program. In general, shared solar, also known as community solar allows a developer of small-scale solar projects to subscribe eligible customers to purchase a share of the output of the solar facility. The customer, through virtual net metering, gets a bill credit from their utility company for the energy being supplied by the shared solar project. This program has the potential to be open to municipalities, schools, and other organizations that do not have the capital budgets to outright purchase solar energy systems. Also, this program is open to residential and commercial companies who might be unable to have access to rooftop solar because they rent, live in multitenant buildings, or are unable to host a rooftop solar system because their roof is shaded by trees or might not have the structural integrity to support the weight of the solar equipment. Lastly, the program has a Low to Moderate Income (LMI) component that incentivizes projects to seek subscribers that qualify for the LMI metric, thus providing them savings on their electricity bill.

The Project site is located approximately 5 miles southwest of Stafford, off Enon Road near the intersection of Enon Road and US-652. A Generalized Development Plan along with site specific information can be found in Section 9. Note: The Project's layout will be finalized after field surveys are completed and will be submitted to the county along with all required construction plans as a part of the site plan approval process. The array layout in the Preliminary Generalized Development Plan is correct in its representation of system size, its general location, and commitments to maintain perimeter buffer, avoid wetlands as practicable, and other noted constraints.

Solar photovoltaic (PV) technology will power this electricity generator. The Project plans to utilize either fixed tilt or single-axis tracking panels mounted on a steel racking system less than 20 feet height from the natural grade below the solar panel. The "fenced in" Project area, as shown in the Preliminary Site Plan, covers about 15.8 acres however the final acreage will be determined after final engineering and field surveys are completed.

It is expected that construction might start as soon as late 2023 or early 2024, with the Project reaching commercial operation within approximately six months of construction start. The Project is expected to be in operation up to 30 years. In addition to engaging the County on zoning, the Applicant has filed for interconnection through the Dominion Energy Virginia interconnection queue and is awaiting results of the studies.

Conformity with Stafford County Comprehensive Plan

Section 15.2-2232 of the Code of Virginia provides that any *"public utility facility or public service corporation facility ... whether publicly or privately owned, shall [not] be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the [applicable Planning Commission] as being substantially in accord with the adopted comprehensive plan or part thereof."*

The Applicant requests that the Planning Commission determine that the Project is substantially in accord with the 2016 – 2036 Stafford County Comprehensive Plan (CP). The Project supports the County's vision values, and goals, as outlined in the CP. In short, the Project diversifies the local tax base and provides significant local revenue that are not offset by demand for public services. Key themes relating to solar land use in the CP:

A. Diversify the Local Economy and Tax Base

A primary goal of the CP is to *"the maximum extent possible, the County should collect funds from land development projects to pay for the costs of growth and development"* (CP, pg. 2-11). The adoption of this growing field can lead to direct economic boosts during construction (by providing local construction jobs) and long-term economic gains by the local economy which may serve to attract further business development to the region. Additionally, the Project will directly generate significant revenue for the county as described herein.

Solar energy is among the fastest growing industries in the nation and is especially vibrant in the Commonwealth of Virginia. Further, many corporations are requesting access to renewable energy when deciding where to locate facilities. A goal within the Amended Business and Industry Section of the Land Use Plan states that "*Utility scale solar energy facilities are encouraged to be located to support local businesses and in*dustry" (CP, pg. 3-61). Enon Road Solar Farm will provide a significant boost to the local economy as evidenced by the construction of solar projects in the region including Halifax, Mecklenburg, Greensville, Sussex, and Southampton. Through substantial cash payments provided by the Applicant, Stafford County can improve roads, delegate funds to the fire department, schools, or any of public service. Furthermore, the intent of the Project is to be a part of the Virginia Shared Solar Program, and this program appeals to a large group of county residents who are not able to have solar on their roof for any number of reasons.

B. Protecting Natural Resources

A primary goal of the CP is that "*future development proposal should protect natural, cultural, and historic resources*" (CP, p. 2-2,3). Embracing projects like Enon Road Solar Farm over higher-polluting alternatives helps to ensure a better quality of essential resources such as air and water. Solar facilities conform to the physical characteristics (including wetlands and topography) of the land. Furthermore, a goal within the Amended Agricultural/Rural Areas Section of the Land Use Plan states that "*Siting of any utility scale solar facilities should... Incorporate development techniques that can facilitate conversion of the land back to agricultural uses upon decommissioning of the facility*" (CP, pg. 3-62). While solar farms may displace agricultural or silviculture uses in their immediate footprint, they do not permanently alter the land in a way that would preclude it from returning to its current use at the end of the solar facility's life. As part of the decommissioning process, the land is re-seeded, re-vegetated and stabilized as needed and equipment is safely taken so to return the land to its previous use. It also should be noted that, according to Figure 3.13 in the Amended Future Land Use Recommendations chapter, the property is not classified as either an urban service area or targeted development area. While it's future land use is classified as suburban, the Project allows the property to remain as an agricultural use for at least 35 years.

Part of protecting natural resources may also involve striking a balance between the economic benefits and environmental destructiveness that can come with harvesting merchantable resources such as timber and minerals. While often not considered, sunlight is a merchantable natural resource available to the County. Projects like Enon Road Solar Farm harvest sunlight while significantly reducing harmful impacts associated with other resource cultivation, and the Project will increase the county's revenue.

C. Encouraging Innovative and Environmentally Friendly Land Uses

An additional goal of the CP is to *"Encourage land use activities to protect surface and groundwater resources."* (CP, pg. 2-14). The construction methodology for this Project will have very little impervious surface, estimated to be under 5% of the entire acreage that is being dedicated to the project. This is because concrete is not laid in mass to construct solar farms. Impervious surfaces in the Project include a small concreate pad for the inverter, the driven piles that support the panels, and the gravel access road. Furthermore, by establishing native ground cover, the Project has the potential to increase water infiltration in the area and boost soil organic matter. The Applicant keeps the best stormwater management practices in mind to allow for the transition back to silviculture once the Project is decommissioned.

7. Equipment Used

Racking and Panels

Racking: The Project will use single axis racking technology to track the sun throughout the day to absorb sunlight to convert into electricity. Measurements for this system type are included on the Preliminary Generalized Development Plan, with specifications from a potential product manufacturer included in Section 18. A row of photovoltaic panels will be attached in a linear fashion to each of these racking systems. Other versions of tracking or fixed technology may be considered for the Project.

Panels: Based on current technology, the Project's site could contain around 8,712 photovoltaic solar panels, in total. It is possible that increases in the output per panel may reduce the number of panels needed for the Project. A General Development Plan can be found in Section 9. For more details on these types of panels, see Section 18. That said, depending on final engineering, the exact manufacturer and model may be modified, and the final site plan will be submitted for review by the County as part of the Site Plan process prior to construction.

Inverter

The Project's preliminary design includes string inverters which typically have the following dimensions (W x H x D): 26.4" x 35.5" x 11.7". These inverters are typically mounted to the single axis tracking system thus eliminating the requirement for inverter pads that are utilized on larger projects that interconnect to transmission networks. That said, there is the potential to switch to central inverter(s) which typically have the following dimensions (W x H x D): 22' x 13' x 7'. These inverters are typically mounted on a concrete pad that will be strategically within the project footprint where the cabling from the modules will be routed and connected. The final decision will be made during the site plan approval process. Both string and central inverters convert the direct-current energy generated by the panels to alternating-current energy that is ready to be transmitted onto the local distribution grid. While the exact manufacturer and model may vary as technology improves between now and the commencement of construction, Section 18 has an example equipment datasheet for one of the options. Again, depending on final engineering, this may be modified slightly, and the final site plan will be available to the County as part of the building permitting process.

Transformer and Interconnection

The Project will be interconnecting with Dominion Energy's existing three-phase distribution system at an on-site or nearby location. The Site Plan shows the expected point of interconnection, but the ultimate location will come during the site plan approval process after final consultation with the utility. The interconnection process will not require any new substation equipment to be constructed on-site. Instead, the Project will be connected by increasing the Project voltage with a step-up transformer located within the project and other associated equipment mounted on standard distribution poles so that it is compatible with the existing

voltage of the distribution system. This project is in Dominion Energy's interconnection queue and is pending results from the studies.

8. Impact on Neighbors and General Public

Once construction is complete, the Project is passive, imposing no impacts on the neighbors and producing no pollutants or other emissions. During operations, sound from this project will not exceed the County requirements. At night, there will be no audible noise at the property line emanating from the solar facility components. The inverters produce a low-level hum (the Power Electronic model is listed as producing <79 dBA (decibels) at 1 mile distance), only during daylight hours, when the system is generating energy. This noise level has been described as roughly equivalent to that of a dishwasher. Even in idealized sound-travel conditions, the inverse square law shows that, at 100 feet, the sound emitted from this inverter will be reduced to under 50 dBA or the equivalent of a modern refrigerator. As seen in the Preliminary Site Plan, the design positions the inverters at least 100 feet from the perimeter of the Property line.

The Project will produce no hazardous glare. Solar panels, by design, absorb as much light as possible, and panels reflect/refract much less light than many materials broadly used throughout the area and the County, such as metal roofing on homes and accessory structures. Further, only specific angles between the sun, components of a solar facility, and the vantage point would have any potential of producing a diffused, unobtrusive glare. When employing the use of a tracking system, these angles are not achievable from the vantage of neighboring properties.

Landscape buffering will include existing vegetation and, where the existing vegetation is insufficient, additional vegetation will be planted to minimize the visibility from surrounding parcels. In accordance with the land development code, where additional vegetative buffering is required, for example, along Enon Road and sections of US-562, they will be installed and maintained. Additionally, pollinator friendly and wildlife-friendly native plants, shrubs, trees, grasses, forbs, and wildflowers will be installed and maintained in between and underneath the rows of panels. The Project will be set back a distance of at least 75 feet from all public rights-of-way and main buildings on adjoining parcels, and a distance of at least 50 feet from adjacent property lines. Most adjoining properties are in timber or agricultural use.

Solar is a low-impact land use with minimal to no impact on the County's resources. Other forms of development (commercial, residential housing, etc.) require additional services such as roads, utilities, schools, and law enforcement. Solar and this Project will not place any material burden on the County's resources. The Project will not use any public water or sewer systems. Additionally, no smoke will be emitted during or after construction. The only impervious surface area proposed for the Project will include the gravel access road, the small area where piles are driven into the ground for the panels to mount on, and potentially a small concrete pad for the inverter. The Applicant will plant native grasses and pollinator species underneath and in between the rows of panel, which will assist in water filtration and reduce erosion (See Section 11 for Project specific calculations).

As seen on the Preliminary Generalized Development Plan, the Applicant currently proposes a single entry and exit for the facility. These locations make use of existing access points. The Applicant will follow all VDOT procedures for site entrance approval and nearby roadway traffic

safety/mitigation during construction. Once the Project gets closer to construction, the Applicant will work with VDOT on a Transportation and Construction Plan. Should the Project propose different points of ingress and egress, it will adhere to the CUP Conditions and will be designed in compliance with VDOT regulations.

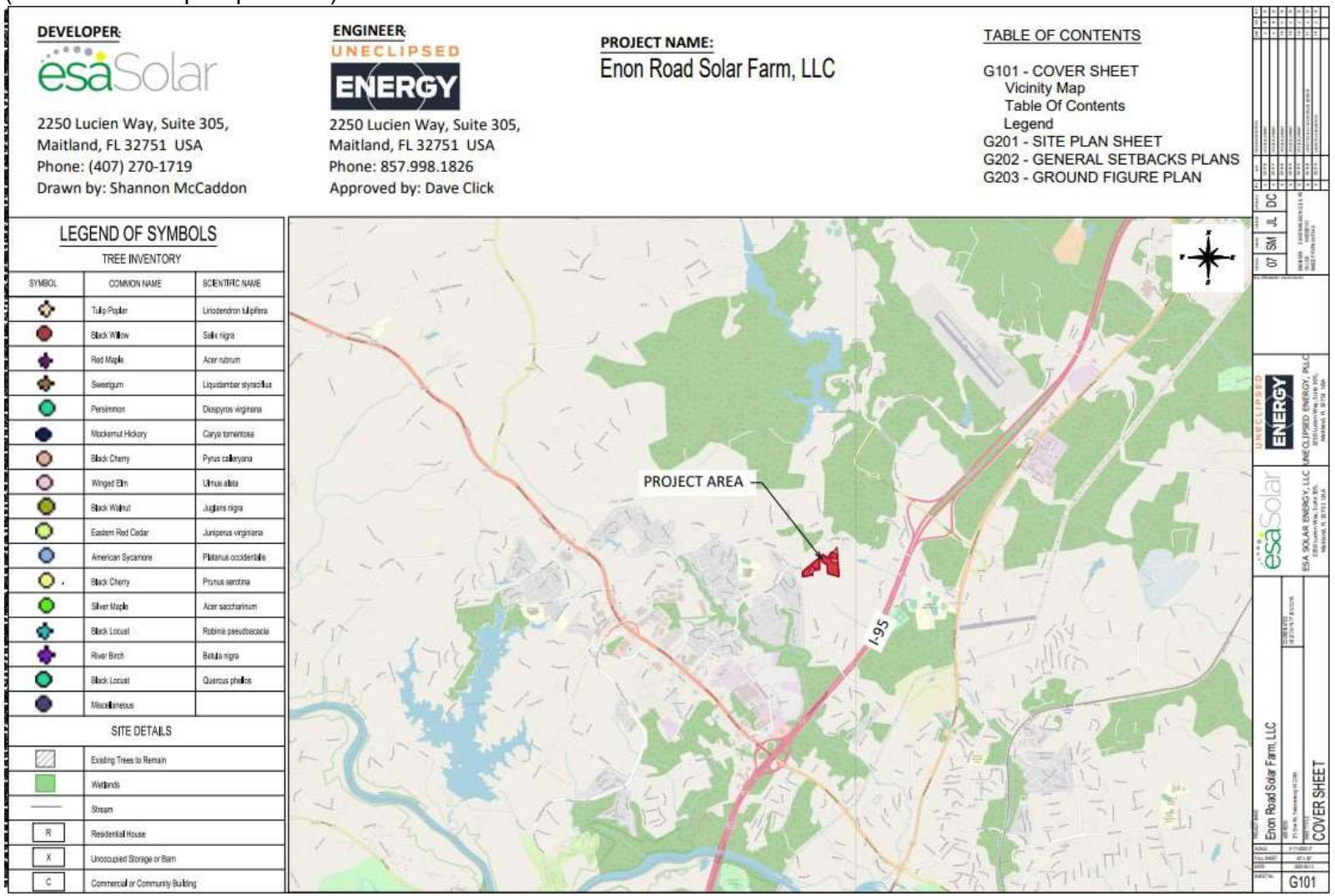
During construction, traffic and dust output will be minimal. Construction for a solar farm of this size will only generate approximately 35 vehicle trips a day, and construction will only take 4-6 months to complete. Traffic flow will likely flow either from the north from Washington DC or from the South from Richmond. Traffic from Washington DC will head south Interstate-95 for approximately 33 miles, until exiting and heading east on Centreport Parkway Turn south onto US-1 for .2 miles, and then head west on Enon Road. The site entrance will be approximately 1.7 miles on the south side of the road. Traffic from Richmond will head North on I-95 for approximately 54 miles, until exiting and heading west on US-17 for 1.2 miles. From there, traffic will head north on Plantation drive for 1.6 miles. Head south of Truslow Road for .1 miles and then east on Enon Road. The site entrance will be approximately 1,200 feet on the south side of the road. During the construction phase when deliveries are taking place, the Applicant will implement typical traffic mitigation and safety measures to ensure orderly traffic flows at the site entrance on Enon Road and nearby roadways as needed. General construction traffic will consist of the following:

1) Component deliveries (i.e. solar panels, inverters, gravel/concrete trucks, construction equipment, etc.) via single-unit heavy vehicles;
2) Passenger vehicles (pick-up trucks) carrying personnel, tools, and minor equipment to and around the construction site.

After the construction phase, no impact on local traffic is expected from operations of this Project. Furthermore, once operational, the Project will produce electricity during daylight hours. It will not require regular staff and will only be visited as needed for maintenance of the system or landscaping (typically 1-2 visits per month in passenger vehicle).

9. Generalized Development Plan and Site Layout

(Ten 11” x17” copies provided)



DEVELOPER:

esaSolar

2250 Lucien Way, Suite 305,
Maitland, FL 32751 USA
Phone: (407) 270-1719
Drawn by: Shannon McCaddon

ENGINEER:

UNECLIPSED ENERGY

2250 Lucien Way, Suite 305,
Maitland, FL 32751 USA
Phone: 857.998.1826
Approved by: Dave Click

PROJECT NAME:

Enon Road Solar Farm, LLC

TABLE OF CONTENTS

LEGEND OF SYMBOLS

TREE INVENTORY

SYMBOL	COMMON NAME	SCIENTIFIC NAME
	Tulip Poplar	Liriodendron tulipifera
	Black Willow	Salix nigra
	Red Maple	Acer rubrum
	Sweetgum	Liquidamber styraciflua
	Persimmon	Diospyros virginiana
	Mockernut Hickory	Carya tomentosa
	Black Cherry	Pyrus calleryana
	Winged Elm	Ulmus alata
	Black Walnut	Juglans nigra
	Eastern Red Cedar	Juniperus virginiana
	American Sycamore	Platanus occidentalis
	Black Cherry	Prunus serotina
	Silver Maple	Acer saccharinum
	Black Locust	Robinia pseudoacacia
	River Birch	Betula nigra
	Black Locust	Quercus phellos
	Miscellaneous	

SITE DETAILS

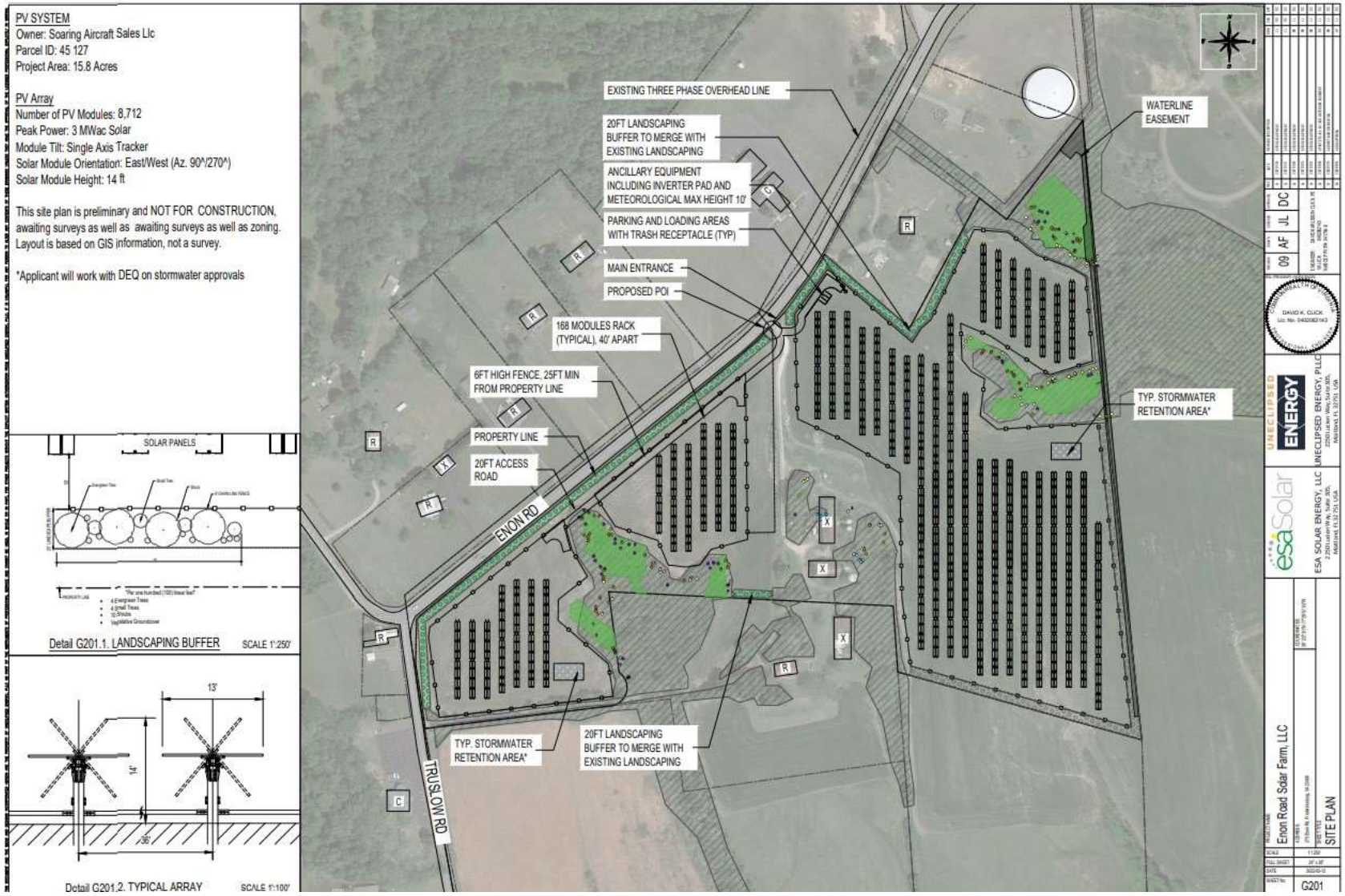
	Existing Trees to Remain
	Wetlands
	Stream
R	Residential House
X	Unoccupied Storage or Barn
C	Commercial or Community Building

Enon Road Solar Farm, LLC

COVER SHEET

G101

- (Ten 24” x 36” copies provided separately)



10. Landscaping and Screening Plan

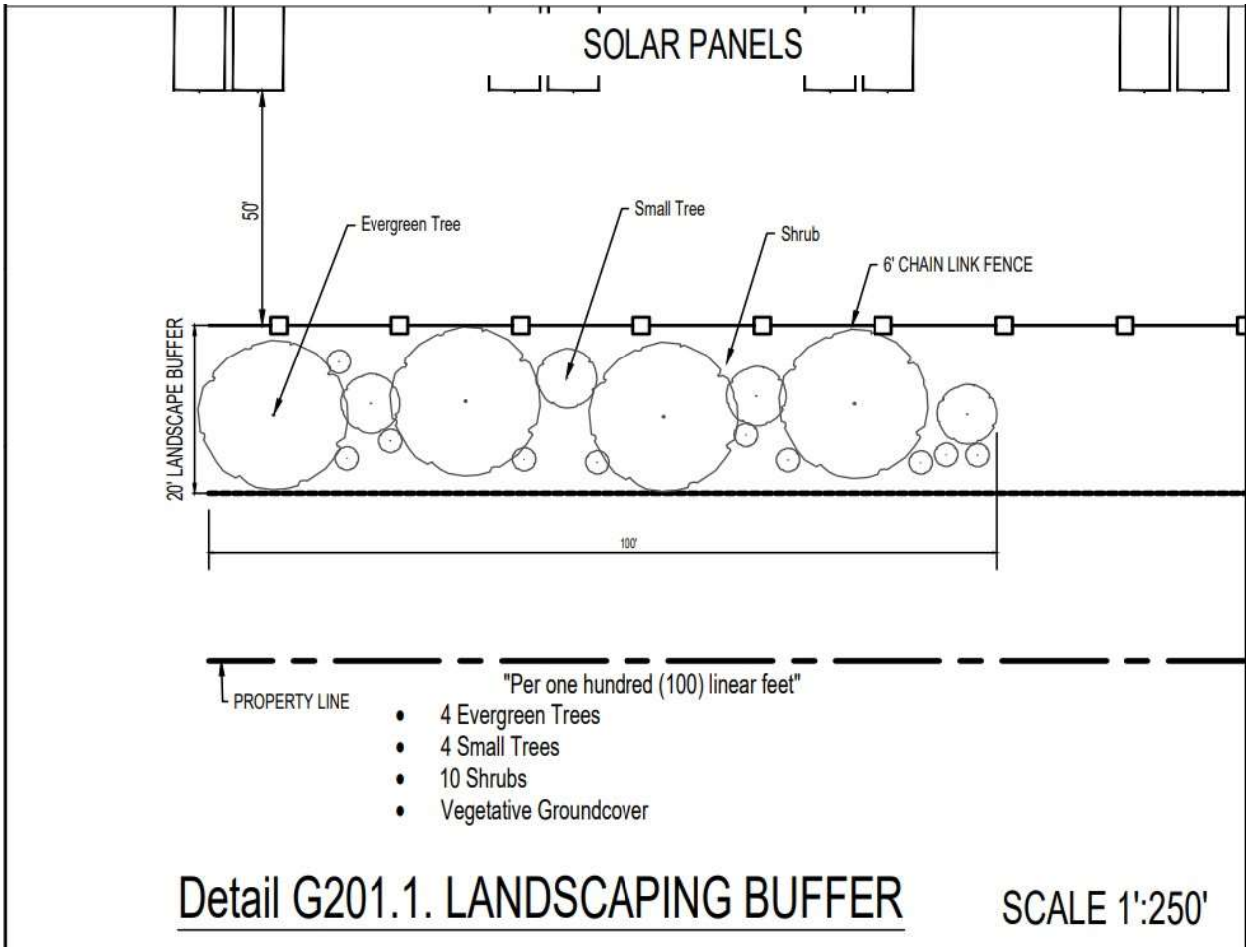
Existing landscaping, and if needed a planted buffer will shield the Project from public rights of way and neighboring properties. Minimizing impacts on viewsheds, including from residential areas and areas of scenic, historical, cultural, areological and recreational significance. This includes using panels that employ anti-glare technology and anti-reflective coatings and reduce glint and glare to levels that meet or exceed industry standards.

The project area shall be setback at least 75 feet from all public rights of way and main buildings on adjoining parcels and a distance of at least 50 feet from adjacent property lines. Most adjoining properties are also in timber or agricultural use. In the Preliminary Generalized Development Plan, principal structures in the vicinity of the Project have been identified.

The Project area shall be enclosed by security fencing not less than six feet in height and equipped with an appropriate anti climbing device and installed on the interior of the vegetative buffer and maintained throughout the life of the Project. Fencing and landscaping will be monitored, maintained, and fixed if needed.

Where determined necessary, the landscape buffer shall be at least 20 feet wide, located within the setbacks consisting of rows of staggard trees and other vegetation. This buffer will be made up of plant materials at least three feet high at time of planting and that are reasonably expected to grow to a minimum height of eight feet within three years. These will be non-invasive plant species, pollinator-friendly and wildlife-friendly native plants, shrubs, trees grasses, forbs, wildflowers. All cleared areas on the interior of the Project will be seeded with a native grass/wildflower mix. The use of this native material will stabilize the site and prevent erosion and sediment transport as well as create habitat for small mammals and ground nesting birds

Where a vegetative buffer is required, below is a general sample:



"Per one hundred (100) linear feet"

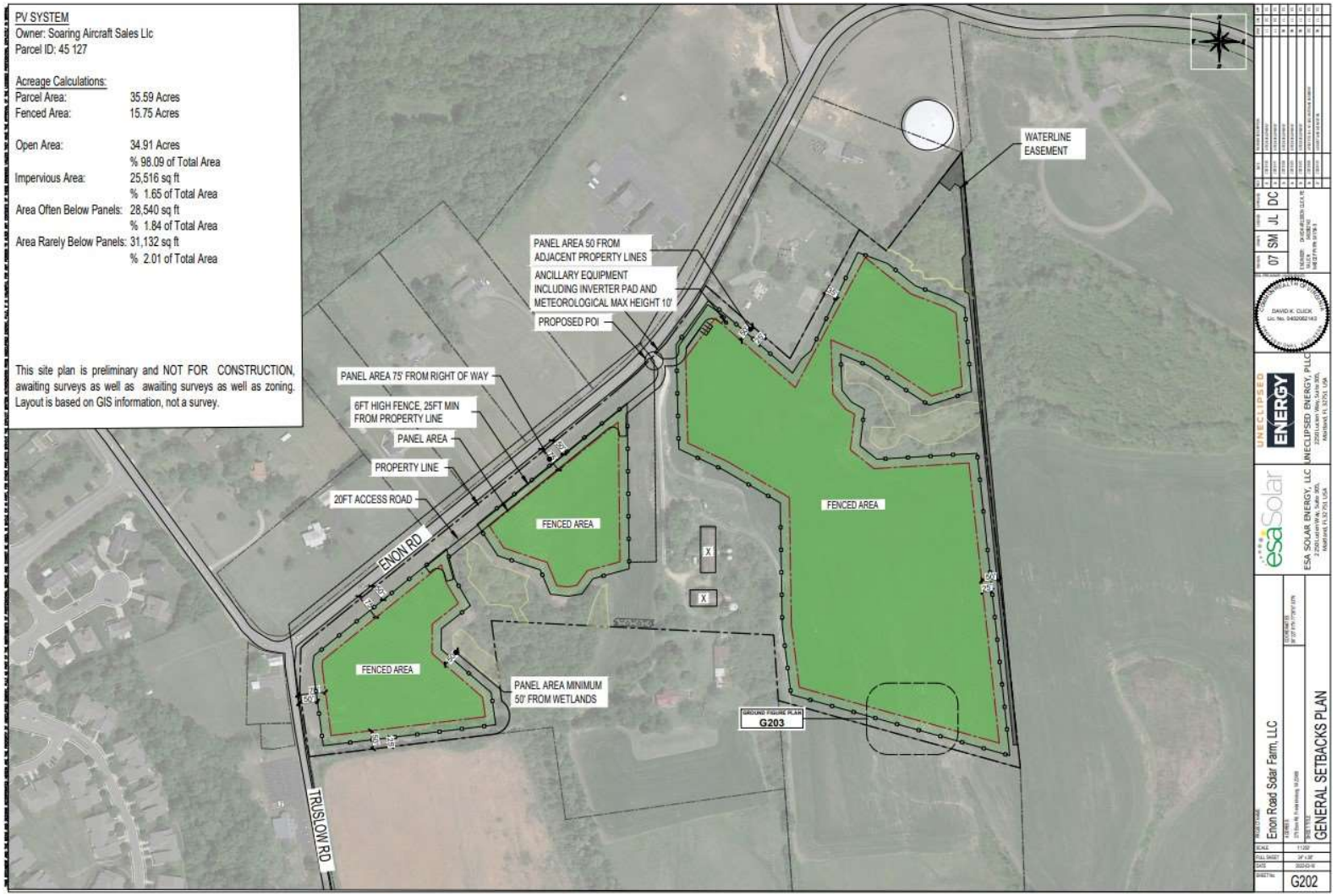
- 4 Evergreen Trees
- 4 Small Trees
- 10 Shrubs
- Vegetative Groundcover

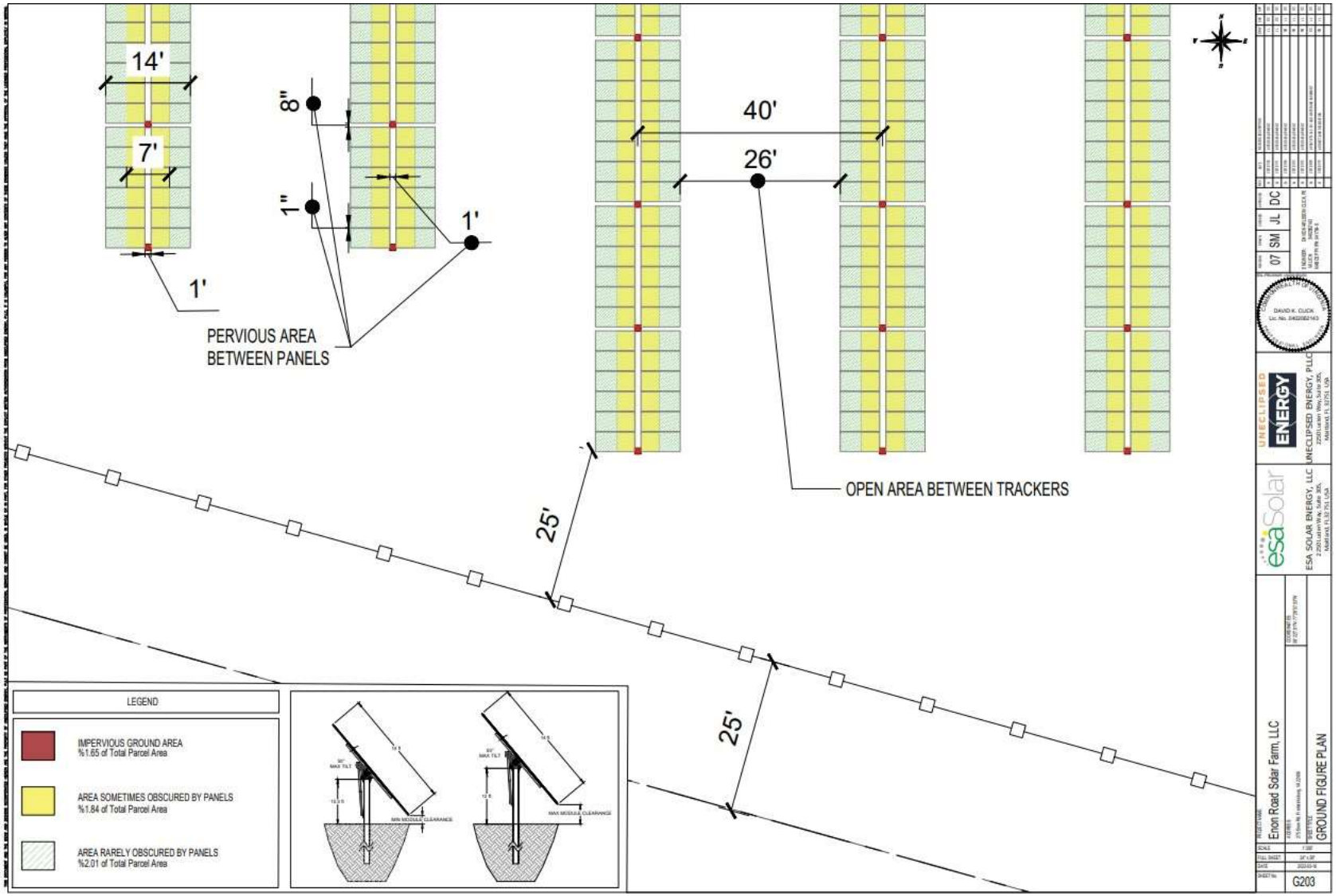
Detail G201.1. LANDSCAPING BUFFER

SCALE 1':250'

11. Impervious and Open Area

As described above, solar farms include mostly pervious surfaces. In the event of rain or snow, runoff will be able to filter into the ground due to the tilt of panels and the area in between rows of panels. Furthermore, because it is the intent to use two-high trackers, there will be an inch of space for water falling on the top panel to fall between the top and bottom row. There will be minimal, if any, grading, and the Applicant will follow all local and state stormwater and sediment control requirements. To help illustrate this point, the figures below show specific calculations for the open area and impervious areas associated with the Project. Because the Project is expected to use single axis trackers, depending on the time of day, parts of the ground will sometimes be covered, and others will rarely be covered. Other parts, like the driven piles, are considered fully impervious because they impede water runoff all the time. In total, only 2.01% of the total parcel area is considered impervious, and 98.09% of the total parcel area is open area. The ground cover will be made up of pollinator friendly species and natural ground cover. Furthermore, as part of the decommissioning process, the site will be fully restored to its original state, and it will be re-seeded and re-vegetated. These figures are also provided as a separate attachment.


PV SYSTEM
Owner: Soaring Aircraft Sales Llc
Parcel ID: 45 127
Acreage Calculations:
Parcel Area: 35.59 Acres
Fenced Area: 15.75 Acres
Open Area: 34.91 Acres
% 98.09 of Total Area
Impervious Area: 25,516 sq ft
% 1.65 of Total Area
Area Often Below Panels: 28,540 sq ft
% 1.84 of Total Area
Area Rarely Below Panels: 31,132 sq ft
% 2.01 of Total Area
This site plan is preliminary and NOT FOR CONSTRUCTION, awaiting surveys as well as awaiting surveys as well as zoning. Layout is based on GIS information, not a survey.
WATERLINE EASEMENT
PANEL AREA 50 FROM ADJACENT PROPERTY LINES
ANCILLARY EQUIPMENT INCLUDING INVERTER PAD AND METEOROLOGICAL MAX HEIGHT 10'
PROPOSED POI
PANEL AREA 75' FROM RIGHT OF WAY
6FT HIGH FENCE, 25FT MIN FROM PROPERTY LINE
PANEL AREA
PROPERTY LINE
20FT ACCESS ROAD
ENON RD
FENCED AREA
FENCED AREA
FENCED AREA
PANEL AREA MINIMUM 50' FROM WETLANDS
TRUSLOW RD
GROUND FIGURE PLAN
G203
Enon Road Solar Farm, LLC
GENERAL SETBACKS PLAN
G202



UNECLIPSED ENERGY

esaSolar

ESA SOLAR ENERGY, LLC
UNECLIPSED ENERGY, PLLC

PROJECT NAME: Enon Road Solar Farm, LLC

SHEET NAME: GROUND FIGURE PLAN

SHEET No: G203

12. Proof of Real Estate Tax Payments

Tuesday, December 21, 2021 at 10:23:48 AM Eastern Standard Time

Subject: RE: Real Estate Taxes for Parcel Number 45 127
Date: Tuesday, December 21, 2021 at 8:36:17 AM Eastern Standard Time
From: Treasurer
To: Cara Romaine
Attachments: image002.png

Good Morning,

Thank you for your email inquiry. Please be advice that there is no pending balance on the account.

Sincerely,

Glenda I Caballero
Revenue Collection Agent
Stafford County Treasurer's Office
1300 Courthouse Rd
Stafford VA 22554
540-658-5371 Ext. 1017

From: Cara Romaine <cromaine@esa-solar.com>
Sent: Monday, December 20, 2021 1:25 PM
To: Treasurer <treasurer@staffordcountyva.gov>
Subject: Real Estate Taxes for Parcel Number 45 127

Good afternoon,

Have all real estate taxes been paid in full on parcel number 45-127? The address for this property is 275 Enon Road.

Thank you,

Cara Romaine | *Project Development Analyst*
561-351-7201 (mobile)
esaSolar

Stafford County Real Estate Tax Search/Payment

Owner
Name / Mailing Address:
SOARING AIRCRAFT SALES LLC
3110 VOYAGE DR STAFFORD VA
22554-2634

Property Description
Map #: 45-127
Alt. ID/PIN: 27745
Legal: 275 ENON RD

Current Assessment
Land Value: $384,200
Improvment Value: $10,300
Land Use Value: $74,000
Total Taxable Value: $84,300

View Real Estate Details

Invoice History

Total Due: $0.00

Total Tax Paid: $16,927.70
Total Penalty/Int Paid: $75.90
Total Fees Paid: $0.00
Total Other Assessments: $0.00

Year	Bill #	Type	Due Date	Rate	Levy Due	Penalty Due	Interest Due	Total Due	Total Paid	Date Paid
2021	27069	Real Estate	12/6/2021	0.970	$408.86	$0.00	$0.00	$0.00	$408.86	11/29/2021
2021	27069	Real Estate	6/7/2021	0.970	$408.86	$0.00	$0.00	$0.00	$408.86	5/24/2021
2020	27082	Real Estate	12/7/2020	0.970	$408.86	$0.00	$0.00	$0.00	$408.86	11/19/2020
2020	27082	Real Estate	6/5/2020	0.970	$408.86	$0.00	$0.00	$0.00	$408.86	5/22/2020
2019	27103	Real Estate	12/5/2019	1.010	$425.72	$0.00	$0.00	$0.00	$425.72	12/2/2019
2019	27103	Real Estate	6/5/2019	1.010	$425.72	$0.00	$0.00	$0.00	$425.72	5/14/2019
2018	27136	Real Estate	12/6/2018	0.990	$417.29	$0.00	$0.00	$0.00	$417.29	11/27/2018
2018	27136	Real Estate	6/5/2018	0.990	$417.29	$0.00	$0.00	$0.00	$417.29	5/29/2018
2017	27165	Real Estate	12/5/2017	0.990	$417.29	$0.00	$0.00	$0.00	$417.29	11/14/2017
2017	27165	Real Estate	6/5/2017	0.990	$417.29	$0.00	$0.00	$0.00	$417.29	5/15/2017
2016	27194	Real Estate	12/5/2016	0.990	$417.29	$0.00	$0.00	$0.00	$417.29	11/10/2016
2016	27194	Real Estate	6/6/2016	0.990	$417.29	$41.73	$0.00	$0.00	$459.02	6/28/2016
2015	27215	Real Estate	12/7/2015	1.019	$429.51	$0.00	$0.00	$0.00	$429.51	11/18/2015
2015	27215	Real Estate	6/5/2015	1.019	$429.51	$0.00	$0.00	$0.00	$429.51	5/15/2015
2014	27244	Real Estate	12/5/2014	1.019	$404.03	$0.00	$0.00	$0.00	$404.03	12/4/2014
2014	27244	Real Estate	6/5/2014	1.019	$404.03	$0.00	$0.00	$0.00	$404.03	6/6/2014
2013	27261	Real Estate	12/5/2013	1.070	$424.26	$0.00	$0.00	$0.00	$424.26	12/5/2013
2013	27261	Real Estate	6/5/2013	1.070	$424.26	$0.00	$0.00	$0.00	$424.26	5/20/2013
2012	27283	Real Estate	12/5/2012	1.070	$395.37	$0.00	$0.00	$0.00	$395.37	11/28/2012

Year	Bill #	Type	Due Date	Rate	Levy Due	Penalty Due	Interest Due	Total Due	Total Paid	Date Paid
2012	27283	Real Estate	6/19/2012	1.070	$395.37	$0.00	$0.00	$0.00	$395.37	6/1/2012
2011	27309	Real Estate	12/5/2011	1.080	$453.06	$0.00	$0.00	$0.00	$453.06	11/15/2011
2011	27309	Real Estate	6/6/2011	1.080	$453.06	$0.00	$0.00	$0.00	$453.06	6/2/2011
2010	27328	Real Estate	12/6/2010	1.100	$461.45	$0.00	$0.00	$0.00	$461.45	12/1/2010
2010	27328	Real Estate	6/7/2010	1.100	$461.45	$0.00	$0.00	$0.00	$461.45	5/20/2010
2009	27349	Real Estate	12/7/2009	0.840	$488.88	$0.00	$0.00	$0.00	$488.88	11/20/2009
2009	27349	Real Estate	6/5/2009	0.840	$488.88	$0.00	$0.00	$0.00	$488.88	6/4/2009
2008	27376	Real Estate	12/5/2008	0.840	$488.88	$0.00	$0.00	$0.00	$488.88	12/9/2008
2008	27376	Real Estate	6/5/2008	0.840	$488.88	$0.00	$0.00	$0.00	$488.88	5/23/2008
2007	27416	Real Estate	12/5/2007	0.700	$352.45	$0.00	$0.00	$0.00	$352.45	11/26/2007
2007	27416	Real Estate	6/5/2007	0.700	$352.45	$0.00	$0.00	$0.00	$352.45	6/8/2007
2006	37351	Real Estate	12/5/2006	0.630	$317.20	$0.00	$0.00	$0.00	$317.20	11/26/2006
2006	37351	Real Estate	6/5/2006	0.630	$317.20	$0.00	$0.00	$0.00	$317.20	5/15/2006
2005	36220	Regular RE	12/5/2005	0.000	$320.10	$0.00	$0.00	$0.00	$320.10	12/7/2005
2005	36220	Regular RE	6/5/2005	0.000	$320.10	$0.00	$0.00	$0.00	$320.10	6/23/2005
2004	34912	Regular RE	12/5/2004	0.000	$336.10	$0.00	$0.00	$0.00	$336.10	11/18/2004
2004	34912	Regular RE	6/5/2004	0.000	$336.10	$33.61	$0.56	$0.00	$370.27	8/17/2004
2003	4813	Regular RE	12/5/2003	0.000	$363.66	$0.00	$0.00	$0.00	$363.66	12/17/2003
2003	4813	Regular RE	6/5/2003	0.000	$363.66	$0.00	$0.00	$0.00	$363.66	6/23/2003
2002	96	Regular RE	12/5/2002	0.000	$363.66	$0.00	$0.00	$0.00	$363.66	12/17/2002
2002	96	Regular RE	6/5/2002	0.000	$363.66	$0.00	$0.00	$0.00	$363.66	6/6/2002
2001	95	Regular RE	12/5/2001	0.000	$369.93	$0.00	$0.00	$0.00	$369.93	12/5/2001
2001	95	Regular RE	6/5/2001	0.000	$369.93	$0.00	$0.00	$0.00	$369.93	6/5/2001

13. Proof of Site Control

Documentation of site control is demonstrated below with the memorandum of lease. The Applicant's affiliate, Enon Road Solar farm, LLC is currently the lessee under the project lease. The memorandum of the lease was electronically recorded with the Stafford County Clerk's office.

210040993

Recording Requested By and
When Recorded Return to:

ESA Solar
108 Commerce Street, Suite 105
Lake Mary, FL 32746
Property ID: 45 127
Alternate ID: 27745

MEMORANDUM OF GROUND LEASE

FOR SOLAR ENERGY SYSTEM

THIS MEMORANDUM OF GROUND LEASE FOR SOLAR ENERGY SYSTEM ("**Memorandum**") is made and dated as of April 22, 2021 ("**Effective Date**") by and between **Soaring Aircraft Sales, L.L.C.**, a Virginia limited liability company ("**Landlord**") with a tax mailing address of 3110 Voyage Dr., Stafford, VA 22554, and **Enon Road Solar farm, L.L.C.**, a Delaware limited liability company ("**Tenant**") with a tax mailing address 108 Commerce Street, Suite 105, Lake Mary, FL 32746, in light of the following facts and circumstances:

Landlord and Tenant entered in that certain Ground Lease for Solar Energy System, of even date herewith (the "**Lease**"), pursuant to which Landlord has leased to Tenant certain real property of Landlord ("**Property**") located in the County of Stafford, Virginia as more particularly described on the attached Exhibit A and which the Lease and said Exhibit A are hereby incorporated herein as if fully set forth in this Memorandum. Landlord and Tenant have executed and acknowledged this Memorandum for the purpose of providing constructive notice of the Lease. Capitalized terms not otherwise defined in this Memorandum shall have the meanings provided in the Lease.

NOW THEREFORE, Landlord and Tenant hereby agree as follows:

1. **Lease of Property and Easements**. Landlord has leased the Property to Tenant on the terms, covenants and conditions stated in the Lease. The Lease is for the development and operation of a solar energy Project. As more fully set forth in the Lease, Landlord has granted unto Tenant, and Tenant has accepted from Landlord a ground lease and easements, which include: (i) the sole and exclusive right to use the Property for solar energy conversion purposes, and other related purposes as set forth herein, and to capture, use and convert unobstructed solar resources over and across the Property, and to install, use, operate, maintain, repair, improve, relocate, replace and remove components of the Solar Energy System and on the Property; (ii) an exclusive lease of the Property and all air rights thereon for solar energy conversion purposes and other related purposes as set forth herein; (iii) an exclusive easement on, over and across the Property for one or more line or lines, underground wires and cables, for the transmission and/or collection of electrical energy and/or for communication purposes relating to the project (including, without limitation, communications and radio relay systems and telecommunications equipment), and all necessary other appliances and fixtures for use in connection with said wires and cables; (iv) an easement on, over and across the Property for access to any point where any Solar Energy Facilities are or may be located at any time from time to time; (v) an exclusive easement on, over and across the Property for the open and unobstructed access to the solar energy resources found on, below, over and across the Property (such

energy resources collectively referred to as the "**Solar Energy Resources**") to any Improvements on any of the Property and to ensure adequate exposure of the Improvements to the Solar Energy Resources and an easement and right on the Property to prevent measurable diminishment in output due to obstruction or impediment of the sunlight across the Property including but not limited to an easement right to trim, prune, top, cut down, remove or otherwise control all trees (whether natural or cultivated), shrubs, brushes, plants or other vegetation and dismantle, demolish and remove any and all fire and electrical hazards now or hereafter existing on the Property which might impede and/or obstruct receipt of or access to sunlight throughout the Solar Panel Area or interfere with or endanger the Solar Energy System, as determined by Tenant; and (vi) an exclusive easement prohibiting any obstruction to the open and unobstructed access to the Solar Energy Resources throughout the entire Property to and for the benefit of the area existing horizontally three hundred and sixty degrees (360°) from any point where any Solar Energy Facilities are or may be located at any time from time to time (each such point referred to as a "**Site**") and for a distance from each Site to the boundaries of the Property, together vertically through all space located above the surface of the Property, that is, one hundred eighty degrees (180°) or such greater number or numbers of degrees as may be necessary to extend from each point on and along a line drawn along the surface from each point along the exterior boundary of the Property through each Site to each point and on and along such line to the opposite exterior boundary of the Property; (vii) an easement and right for any audio, visual, view, light, glare, shadow, noise, vibration, electromagnetic or other effect of any kind or nature whatsoever resulting, directly or indirectly, from the Solar Energy System owned, leased, operated or maintained by Tenant, on the Property, including but not limited to rights to cast shadows and reflect glare onto all of Landlord's property, from the Solar Energy System and/or any and all other related facilities located on the Property, (viii) the right of subjacent and lateral support on the Property to whatever is necessary for the operation and maintenance of the Solar Energy System, including, without limitation, anchors, guy wires and other supports, and (ix) a right to undertake any such purposes or other activities on the Property, whether accomplished by Tenant or a third party authorized by Tenant, that Tenant reasonably determines are required, necessary, useful and/or appropriate, each as applicable, to accomplish any of the purposes or uses set forth in this Lease or that are compatible with such purposes or uses. This Lease and the easements granted herein shall be binding upon Landlord's heirs, personal representatives, successors and assigns and shall run with the Property for the Term.

2. **Term**. The term of the Lease shall begin on the Effective Date and shall expire five (5) years after the Effective Date, if not extended or sooner terminated as provided in this Lease. Tenant may at its sole discretion extend the term of this Lease for an additional twenty (20) year term and followed by two (2) additional five (5) year terms.

3. **Ownership**. Landlord shall have no ownership or other interest in any Improvements (as defined in the Lease) installed on the Property.

4. **Assignment**. The Lease provides, among other things, that Tenant and any Transferee shall have the right, subject to certain conditions set forth in the Lease, to sell, convey, lease, assign, mortgage, encumber or transfer to one or more assignees or mortgagees the Lease, or any right or interest in the Lease, or any or all right or interest of Tenant in the Property, or in any or all of the Improvements that Tenant or any other party may now or hereafter install on the Property.

5. **Rights of Mortgagees**. Pursuant to the Lease, any Mortgagee of Tenant or Tenant's assignees has certain rights regarding notice and right to cure any default of Tenant under the Lease, and the right to take possession of the Property and the Project, and to acquire the leasehold estate and the easement interests by foreclosure, as well as other rights as set forth in the Lease.

6. **Notice**. This Memorandum is prepared for the purpose of giving notice of the Lease and in no way modifies the express provisions of the Lease.

7. **Setback Waiver**. To the extent that any applicable law, ordinance, regulation or permit establishes, or has established, minimum setbacks from the exterior boundaries of the Property, from any structures on the Property (occupied or otherwise) or from any other point of measurement for Improvements constructed on the Property or otherwise within the Project, Landlord hereby waives any and all such setback requirements (the "**Setback Waiver**"). The Setback Waiver is for the benefit of Tenant, the owner(s) of adjacent properties within the Project, and their respective successors and assigns, and shall run with the land. If requested by Tenant, Landlord shall execute and deliver to Tenant one or more separate setback waivers evidencing the intent of this Setback Waiver, in a form provided by Tenant, which Tenant may then record at its expense. This waiver shall survive the termination of this Lease for so long as Improvements exist on real property adjacent to the Property.

8. **Landlord as Tenant's Agent**. Landlord hereby appoints Tenant as Landlord's agent, provided that Tenant abides by all County setback ordinances, only for the purpose of preparing, executing, applying for, submitting, and/or prosecuting in Landlord's name, any and all Approvals on behalf of Landlord, any environmental impact review, permit, entitlement, approval, authorization or other rights necessary or convenient in connection with Tenant's intended Solar Energy System and Operations from any governmental agency or any other person or entity (collectively "**Approvals**").

9. **Successors and Assigns**. This Memorandum, the Lease and the easements described herein shall burden the Property and shall run with the land. The Lease and this Memorandum shall inure to the benefit of and be binding upon Landlord and Tenant and, to the extent provided in any assignment or other transfer under the Lease, any assignee or Mortgagee, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

10. **No Conflict**. In the event of any conflict or inconsistency between the provisions of this Memorandum and the provisions of the Lease, the provisions of the Lease shall control. Nothing in this Memorandum shall be deemed to amend, modify, change, alter, amplify, limit, interpret or supersede any provision of the Lease or otherwise limit or expand the rights and obligations of the parties under the Lease and the Lease shall control over this Memorandum in all events.

11. **Multiple Counterparts**. This Memorandum may be executed by different parties on separate counterparts, each of which, when so executed and delivered, shall be an original, but all such counterparts shall constitute one and the same instrument.

[*signature page follows*]

IN WITNESS WHEREOF, the Parties have executed this Memorandum as of the Effective Date.

LANDLORD:

Soaring Aircraft Sales, L.L.C.,
A Virginia limited liability company

By: Steven A. Jones

Printed Name: STEVEN A. JONES

Title: PRESIDENT SOARING AIRCRAFT SALES, LLC

STATE OF Virginia

COUNTY OF Stafford

The foregoing instrument was acknowledged before me this 22 day of April, 2021 by Steven Jones, as the president for Soaring Aircraft Sales, L.L.C., a Virginia limited liability company, on behalf of the company.

Notary Public Signature

Crystal McDonald
Notary Public Printed Name

My Commission Expires: 12/31/2021

TENANT:

Enon Road Solar Farm, L.L.C.,
A Delaware limited liability company

By: Lindsay Latre

Printed Name: Lindsay Latre

Title: Manager

STATE OF Florida

CITY OF Seminole

The foregoing instrument was acknowledged before me this 26 day of May, 2021 by Lindsay Latre, as the Manager for Enon Road Solar Farm, L.L.C., a Delaware limited liability company, on behalf of the company.

KRISTIN R. DEFILIPPO
MY COMMISSION EXPIRES
MAY 11, 2024
#GG 965578
Bonded thru
Notary Public Underwriters
NOTARY PUBLIC, STATE OF FLORIDA

Notary Public Signature

Kristin R. DeFilippo
Notary Public Printed Name

My Commission Expires: 5/11/24

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

The Property is all of the following tracts or parcels of land, situated in County of Stafford, Virginia, consisting of 36.7687 acres, more particularly described as follows:

Parcel Number(s): Property ID: 45 127
Alternate ID: 27745

Most recent deed of record: dated July 3, 2003, document number 030026158, by Grantor Earl Broyles, located in Recorder's Office, Stafford County, Virginia.

In the event of inaccuracies in the foregoing legal description, Landlord and Tenant shall amend this Lease to correct such inaccuracies.

INSTRUMENT # 210040993
E-RECORDED IN THE CLERK'S OFFICE OF
STAFFORD COUNTY ON
DECEMBER 14, 2021 AT 08:44AM

KATHY M. STERNE, CLERK
RECORDED BY: ASR

14. Erosion and Sediment Control Plan & Stormwater Management Plan

Stormwater and runoff management are regulated at the federal, state, and local level. Prior to construction, the Project's design and engineering must conform to all state laws and regulations. This includes providing appropriate methods to protect nearby waterways and neighboring property. Construction cannot begin until the Virginia Department of Environmental Quality (DEQ) has approved the Stormwater Management Plan and Tri-County / City Soil and Water Conservation District has approved the Project's soil and erosion control plan.

Prior to construction, the Tri-County / City Soil and Water Conservation District will review, approve, and oversee the Project's soil and erosion control plan. E&S designs and calculations are submitted to the County for approval as part of final permitting. Control devices, designed in accordance with the Virginia E&S Control Handbook, will be implemented to capture and treat runoff during construction phase. Common devices include silt fences, filter socks, check dams, diversion ditches, hay/matting, temporary and permanent seeding, sediment basins and traps (ponds), and construction entrance/exits. Often, the E&S ponds are converted to permanent stormwater detention ponds with onsite ditching directing water to the ponds.

Stormwater plans, designed in accordance with VSMP and the Virginia Runoff Reduction Method, will be implemented to capture and treat runoff during Project operations. The Golden Rule for engineering a stormwater plan is the quality of water leaving the site once the Project is operational will be as good or better than before construction of the Project commenced. Stormwater design and calculations are reviewed and approved by DEQ prior to construction, with an ongoing maintenance agreement required between the Project owner and DEQ. Permanent stormwater management measures will be designed for conversion from the perimeter erosion and sediment control measures to meet state water Quantity standards. Typically, stormwater management measures consist primarily of permanent perimeter ditches to intercept and convey site runoff to dry detention basins. The detention basins are designed to provide rate control to meet downstream channel and flood protection requirements. The number and size of the detention basins is dependent upon the site topography and pre-development sub-drainage areas, with basin locations selected in an effort for post-development discharge locations to mimic pre-development locations.

Water Quality requirements are determined using the state's Volume Runoff Reduction Method (VRRM) and typically require preservation of undisturbed forested "open space" and/or proposed reforestation of open space that requires remediation from pre-development land management activities (i.e. farming or silviculture). A pre-development analysis is performed as part of the state's VRRM. Pre-development sub-drainage areas are delineated and considered in locating proposed basins, so post-development discharge conditions can mimic pre-development conditions. A post-development runoff analysis is also performed as part of the VRRM. DEQ Piedmont Regional Office (PRO) will perform the VSMP review. The PRO review typically requires a rigorous three to four-month review process with multiple submittals and technical engineering reviews. Virginia's regulations and processes for managing water flow during construction and throughout the operating life are tested by time and achieve the desired outcomes for water management. Furthermore, Virginia's approach to water management apply

to all large-scale development with consistent approaches but flexible to address the unique attributes of the particular land use.

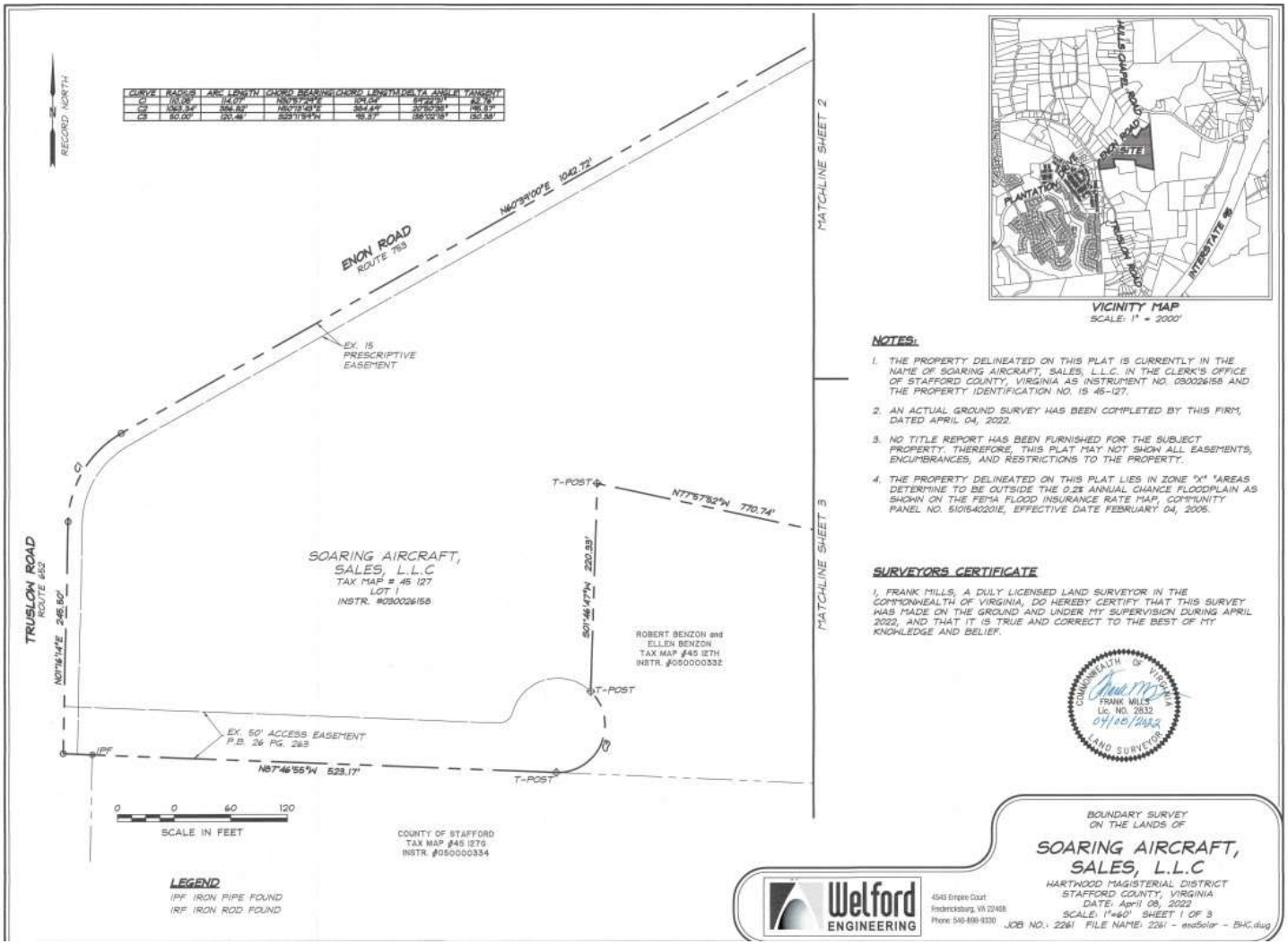
15. Solar Farm End of Life Procedure

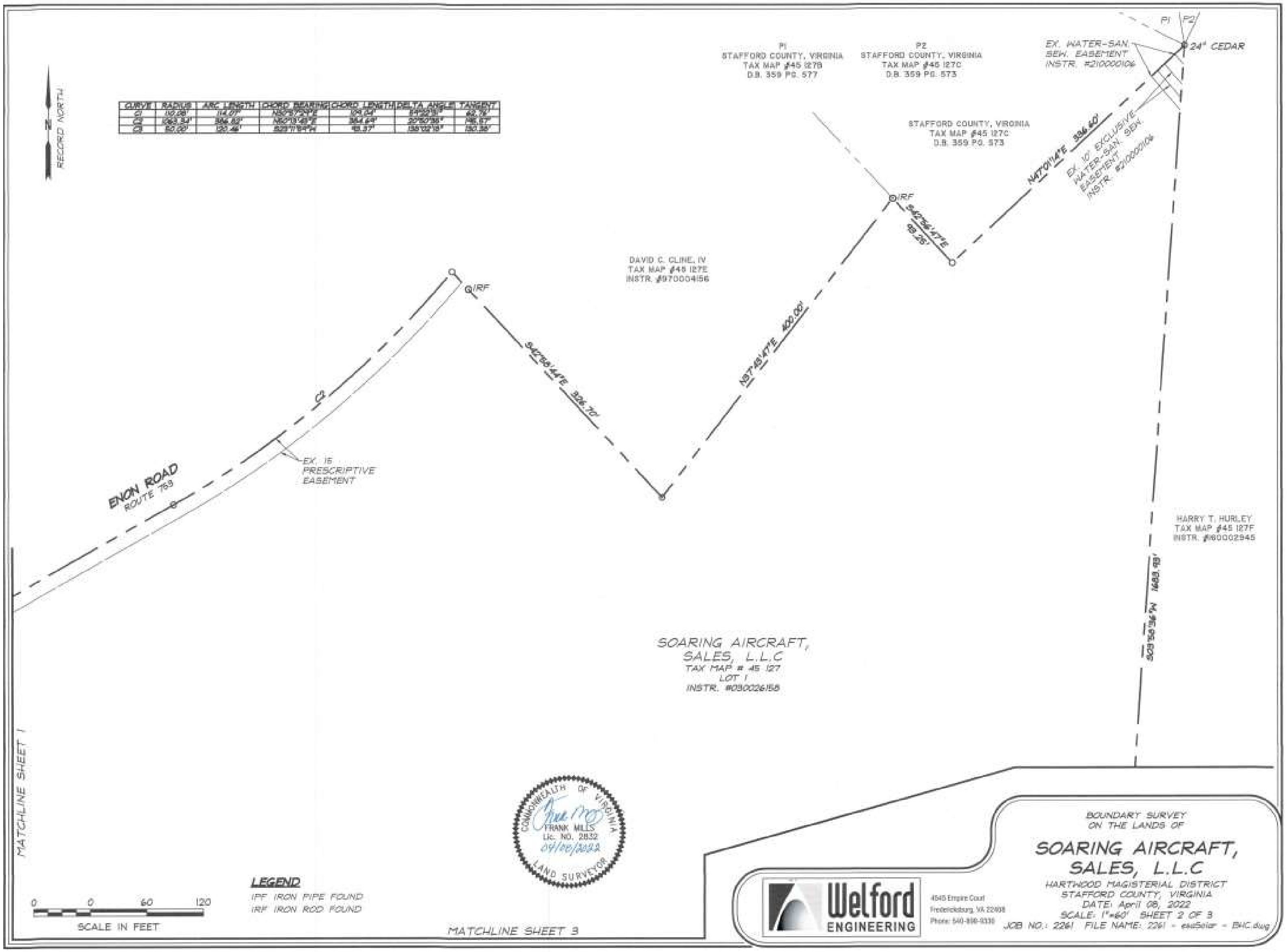
The system is expected to be capable of operation for up to thirty years, with decommissioning at a time to be agreed upon by the system owner and the landowners leasing the land to the system owner. At the end of the project's life, the system owner shall complete the following list of activities to fully decommission the system. This list is prepared based on current procedures and experience, which will likely improve in the coming years as technology, construction processes and recycling infrastructures improve. Decommissioning activities shall be carried out according to applicable regulations and industry best practices, after obtaining any necessary permits for the decommissioning. The decommissioning activities are as follows, and shall be completed in accordance with the industry best practices, OSHA regulations, and state/federal requirements in effect at the time of decommissioning:

- Prepare a safety plan and train all site personnel as to appropriate safeguards and proper work techniques.
- Contact the Utility Company and communicate the cessation of business.
- Disconnect site electric power at the Point of Common Coupling by the site owner or utility. The utility will be responsible for removing all conductors, power poles, and hardware that is under utility ownership.
- Disconnect all dc source circuit wiring from the combiner boxes.
- Disconnect all dc output circuit wiring from any combiner boxes to inverters.
- Unfasten PV modules from the structural racking system and stack in a staging area (this staging area will be used to store all equipment being removed from the site).
- Remove module home run wiring, raceways, and combiner boxes from the racking system.
- Unbolt the racking system components and stack and remove all driven piers.
- Dig up all buried conductors and backfill trenches.
- Coil and stack wire and conduits. Remove wire connectors and splices, dissemble, and sort as required to maximize recycling value.
- Dismantle Inverters, switchgear, and transformers on site when practical, or remove fully intact equipment pads from the site for off-site handling.
- Remove perimeter fencing and pole foundations.
- Sell to a recycling facility any material that can be recycled, unless the original equipment manufacturer or another organization offers a buy-back program for equipment.
- Dispose of all other materials at appropriate handling facilities.
- Dismantle any site roads and restore any compressed soils (under equipment pads, roads) with a subsoiler or flat lifter. Restore any compacted areas to the proper density and depth to remain consistent with the surrounding fields, adding new fill as necessary.
- Re-seed and re-vegetate disturbed areas of the site, ensuring that the land can return to its original state.

16. Boundary Survey with matching metes and bounds description

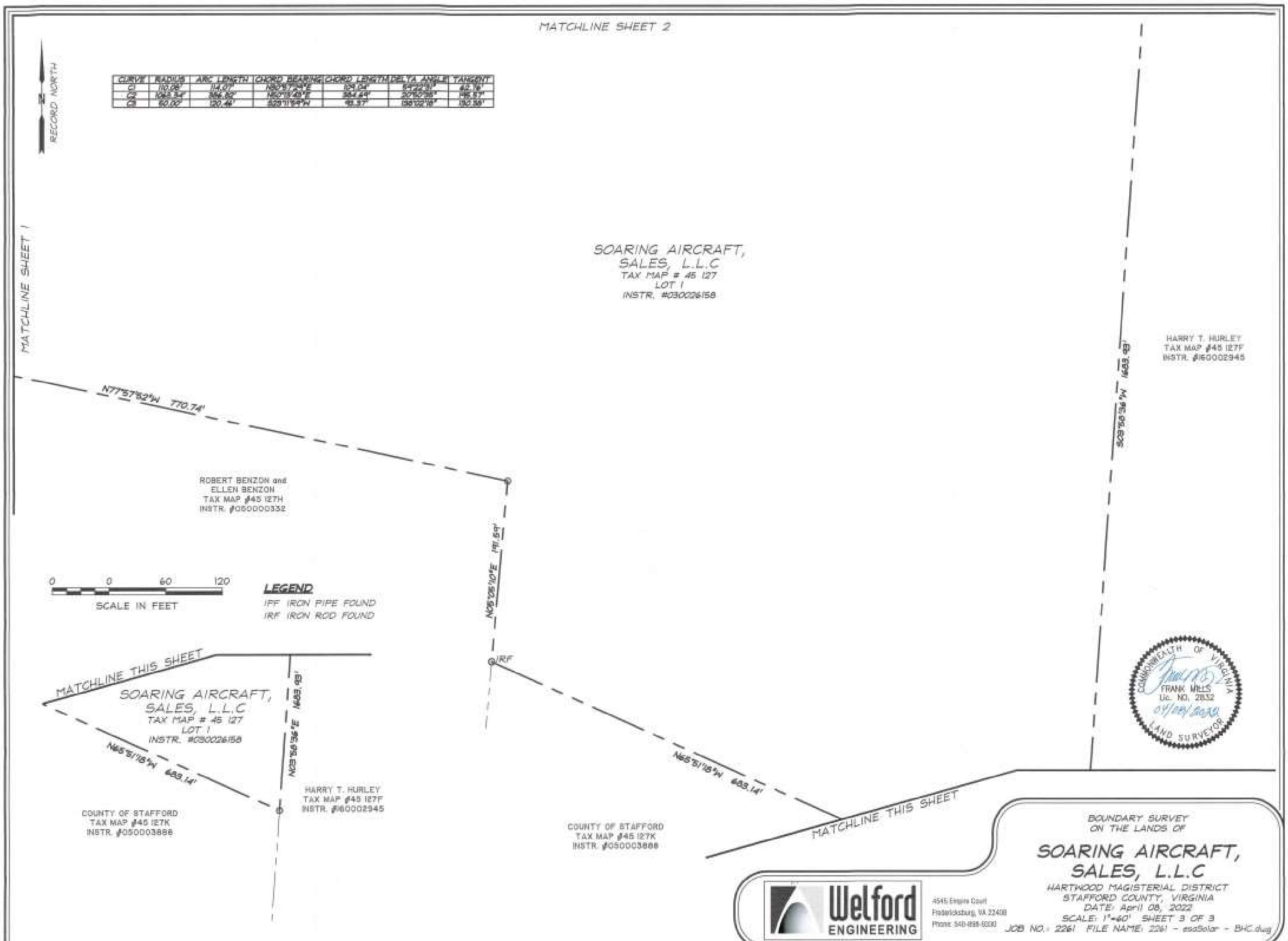
- 3 copies also provided as a separate attachment





CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH	DELTA ANGLE	TANGENT
C1	110.08'	114.07'	N50°57'24"E	109.04'	59°22'31"	62.78'
C2	1068.32'	386.62'	N60°19'49"E	384.64'	20°50'35"	195.67'
C3	50.00'	130.46'	S29°11'54"W	95.37'	138°02'15"	130.38'

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH	DELTA ANGLE	TANGENT
C1	110.08'	114.07'	N80°57'29"E	109.04'	59°22'31"	62.78'
C2	1069.34'	386.82'	N60°18'49"E	384.49'	20°50'36"	195.57'
C3	50.00'	120.46'	S23°11'59"W	93.37'	138°02'16"	130.38'



BOUNDARY SURVEY
ON THE LANDS OF

SOARING AIRCRAFT, SALES, L.L.C

HARTWOOD MAGISTERIAL DISTRICT
STAFFORD COUNTY, VIRGINIA
DATE: April 08, 2022
SCALE: 1"=60' SHEET 3 OF 3
JOB NO.: 2261 FILE NAME: 2261 - esaSolar - BHC.dwg

Welford ENGINEERING
4545 Empire Court
Fredericksburg, VA 22408
Phone: 540-898-5330

PROPERTY DESCRIPTION

ON THE LANDS OF

SOARING AIRCRAFT, SALES, L.L.C.

INSTRUMENT NO. 030026158

STAFFORD COUNTY, VA

ALL THAT CERTAIN LOT OR PARCEL OF LAND SITUATE, LYING, AND BEING IN STAFFORD COUNTY, VIRGINIA AND RECORDED IN THE CLERKS OFFICE OF STAFFORD COUNTY AS INSTRUMENT NO. 030026158, MORE PARTICULARLY DESCRIBED AS,

BEGINNING AT A POINT IN THE CENTER OF TRUSLOW ROAD ROUTE 652 AND ENON ROAD ROUTE 753 AND GOING WITH THE CENTER OF ENON ROAD FOR THE FOLLOWING COURSES;

N60°39'00"E A DISTANCE OF 1042.72' TO A POINT, THENCE;

WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 386.82', HAVING A RADIUS OF 1063.34', WITH A CHORD BEARING OF N50°13'43"E HAVING A CHORD LENGTH OF 384.69' TO A POINT, BEING IN THE CENTER OF ENON ROAD AND BEING THE WESTERLY CORNER OF DAVID C. CLINE, IV AS RECORDED IN INSTRUMENT NO. 970004156, AND CONTINUING WITH THE LINE OF CLINE FOR THE FOLLOWING COURSES,

S42°58'44"E A DISTANCE OF 326.70' TO A POINT, PASSING THROUGH AN IRON ROD FOUND AT A DISTANCE OF 25.44', THENCE;

N37°43'47"E A DISTANCE OF 400.00' TO AN IRON ROD FOUND, BEING THE EASTERLY CORNER OF THE AFOREMENTIONED CLINE AND BEING A POINT OF THE SOUTHWESTERLY LINE OF STAFFORD COUNTY, VIRGINIA AS RECORDED IN DEED BOOK 359 PAGE 573, LEAVING CLINE AND CONTINUING WITH THE LINE OF STAFFORD COUNTY FOR THE FOLLOWING COURSES;

S42°56'47"E A DISTANCE OF 93.25' TO A POINT, THENCE;

N47°01'14"E A DISTANCE OF 336.60' TO A 24" CEDAR, BEING THE SOUTHERN OF CORNER OF STAFFORD COUNTY, VIRGINIA AS RECORDED IN DEED BOOK 359 PAGE 577 AND STAFFORD COUNTY, VIRGINIA AS RECORDED IN DEED BOOK 359 PAGE 573 AND BEING THE WESTERLY CORNER OF HARRY T. HURLEY AS RECORDED IN INSTRUMENT NO. 160002945, LEAVING THE PROPERTIES OF STAFFORD COUNTY AND CONTUINING WITH THE LINE OF HURLEY FOR THE FOLLOWING COURSE;

S03°58'36"W A DISTANCE OF 1683.93' TO A POINT, BEING A POINT ON THE LINE OF THE AFOREMENTIONED HURLEY AND BEING THE NORTHEAST CORNER OF COUNTY OF STAFFORD AS RECORDED IN INSTRUMENT NO. 050003888, LEAVING THE LINE OF THE AFOREMENTIONED HURLEY AND CONTINUING WITH THE LINE OF COUNTY OF STAFFORD FOR THE FOLLOWING COURSE;

N65°51'18"W A DISTANCE OF 683.14' TO AN IRON ROD FOUND, BEING THE NORTHWEST CORNER OF THE AFOREMENTIONED COUNTY OF STAFFORD AND BEING A POINT ON THE EASTERN LINE OF ROBERT AND ELLEN BENZON AS RECORDED IN INSTRUMENT NO. 050000332, LEAVING COUNTY OF STAFFORD AND CONTINUING WITH BENZON FOR THE FOLLOWING COURSES;

N05°05'10"E A DISTANCE OF 191.59' TO A POINT, THENCE;

N77°57'52"W A DISTANCE OF 770.74' TO A METAL T-POST FOUND, THENCE;

S01°46'47"W A DISTANCE OF 220.33' TO A METAL T-POST FOUND, THENCE;

WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 120.46', HAVING A RADIUS OF 50.00', WITH A CHORD BEARING OF S23°11'59"W HAVING A CHORD LENGTH OF 93.37', TO A METAL T-POST, BEING THE SOUTHWEST CORNER OF THE AFOREMENTIONED BENZON AND BEING A POINT ON THE NORTHERN LINE OF COUNTY OF STAFFORD AS RECORDED IN INSTRUMENT NO. 050000334 AND LEAVING SAID BENZON AND CONTINUING WITH COUNTY OF STAFFORD FOR THE FOLLOWING COURSE;

N87°46'55"W A DISTANCE OF 523.17' TO A POINT BEING IN THE CENTER OF TRUSLOW ROAD ROUTE 652 AND PASSING THROUGH AN IRON PIPE FOUND AT A DISTANCE OF 492.13', WITH SAID IRON PIPE FOUND BEING THE NORTHWEST CORNER OF COUNTY OF STAFFORD, LEAVING THE LINE OF COUNTY OF STAFFORD AND CONTINUING WITH THE CENTER OF TRUSLOW ROAD FOR THE FOLLOWING COURSES;

N01°16'14"E A DISTANCE OF 245.50' TO A POINT, THENCE;

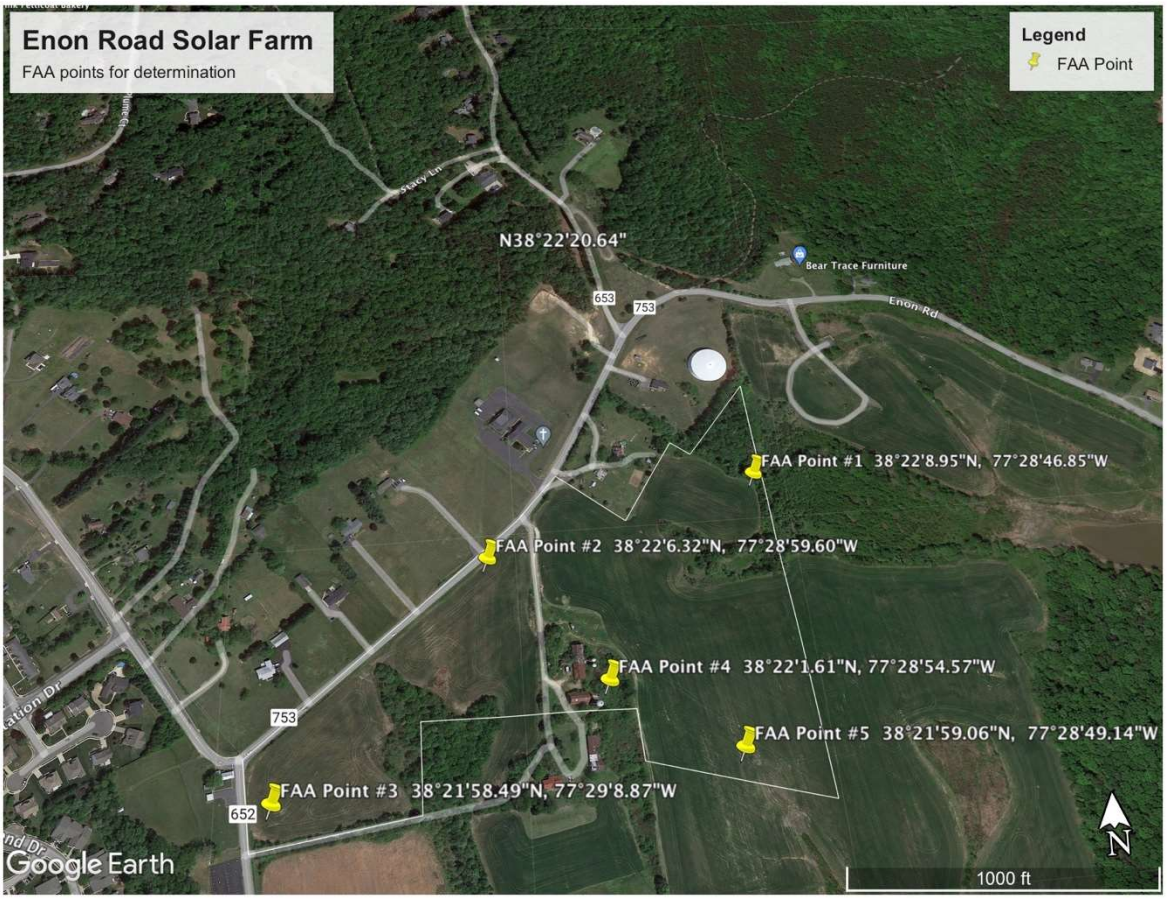
WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 114.07', HAVING A RADIUS OF 110.08', WITH A CHORD BEARING OF N30°57'29"E HAVING A CHORD LENGTH OF 109.04', TO A POINT, WHICH IS THE POINT OF BEGINNING, HAVING AN AREA OF 36.77378 ACRES MORE OR LESS.

17. FAA Determination

Given the proximity to Stafford Regional Airport, the Applicant has consulted the Federal Aviation Administration ("FAA") and asked for the project to be screened for potential impacts with the airport. The FAA conducted an aeronautical study to determine the impact of the proposed structure on aeronautical operations, procedures, and the safety of flight. The study included an evaluation of:

- The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules.
- The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules.
- The impact on existing and planned public use airports.
- Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination.
- Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures.
- The potential effect on ATC radar, direction finders, ATC tower line-of -sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems.
- The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

The FAA determined that Enon Road Solar did not present a hazard to air traffic in the following determination. The full determination can be found in Appendix B. Furthermore, Stafford County Regional Airport determined that the Project does not pose any hazard or conflict to their operations.



**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

To remain in compliance with FAA regulations, the Applicant will submit FAA Form 7460-4, as required, within 5 days after construction reaches its greatest height.

Cara Romaine

From: Director <director@staffordairport.com>
Sent: Monday, March 14, 2022 10:12 AM
To: Cara Romaine
Subject: RE: Enon Road Solar Farm - Stafford County Regional Airport

Good morning, Cara,

From our conversation this morning I have reviewed location and construction parameters associated with a solar farm located vic. east of Stafford Junction and determined that there exists no hazard or conflict with operations at Stafford Regional Airport. As such the Airport has no objections to this project's implementation.

Jim
James Stover
Airport Director
Stafford Regional Airport

From: Cara Romaine <cromaine@esa-solar.com>
Sent: Monday, March 14, 2022 10:08 AM
To: Director <director@staffordairport.com>
Subject: Enon Road Solar Farm - Stafford County Regional Airport

Good morning Jim,

Thank you for taking the time to speak with me this morning regarding a solar farm we are working to obtain a permit for in Stafford County. The solar farm will be located on the corner of Truslow Road and Enon Road. Coordinates for the site are: 38°22'4.70"N, 77°28'57.94"W. Furthermore, we have filed with the FAA, and we have received a determination of no hazard to air navigation.

Can you please confirm that this solar farm will pose no issues for Stafford County Regional Airport?

Thank you,
Cara

Cara Romaine | *Project Development Associate*
(561) 351- 7201 (mobile)
esaSolar

18. Equipment Specifications

Solar Module

CanadianSolar

HiKu

HIGH POWER POLY PERC MODULE

400 W ~ 425 W

CS3W-400|405|410|415|420|425P

MORE POWER

- 24 % higher power than conventional modules
- Up to 4.5 % lower LCOE
  Up to 2.7 % lower system cost
- Low NMOT: 42 ± 3 °C
  Low temperature coefficient (Pmax): -0.36 % / °C
- Better shading tolerance

MORE RELIABLE

- Lower internal current, lower hot spot temperature
- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa, wind load up to 3600 Pa*

* For detailed information, please refer to Installation Manual.

12 Years Enhanced Product Warranty on Materials and Workmanship*

25 Years Linear Power Performance Warranty*

1st year power degradation no more than 2%
Subsequent annual power degradation no more than 0.55%

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

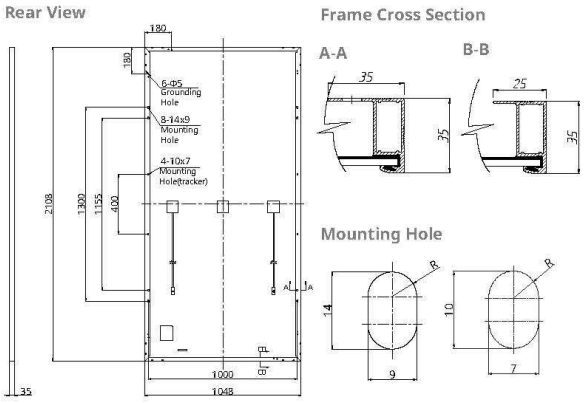
IEC 61215 / IEC 61730 / CE / MCS / INMETRO
CEC listed (US California) / FSEC (US Florida)
UL 61730 / IEC 61701 / IEC 62716
UNI 9177 Reaction to Fire: Class 1 / Take-e-way

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your product and applicable in the regions in which the products will be used.

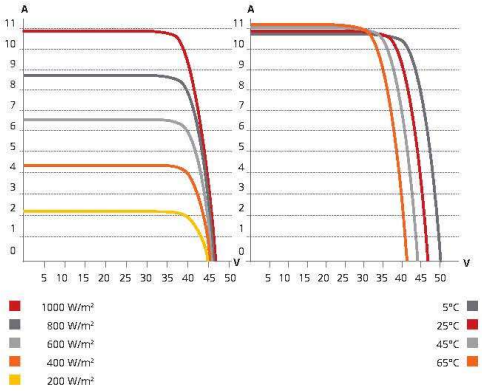
CSI Solar Co., Ltd. is committed to providing high quality solar products, solar system solutions and services to customers around the world. Canadian Solar was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey, and is a leading PV project developer and manufacturer of solar modules, with over 50 GW deployed around the world since 2001.

CSI Solar Co., Ltd.
199 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

ENGINEERING DRAWING (mm)



CS3W-400P / I-V CURVES



ELECTRICAL DATA | STC*

CS3W	400P	405P	410P	415P	420P	425P
Nominal Max. Power (Pmax)	400 W	405 W	410 W	415 W	420 W	425 W
Opt. Operating Voltage (Vmp)	38.7 V	38.9 V	39.1 V	39.3 V	39.5 V	39.7 V
Opt. Operating Current (Imp)	10.34 A	10.42 A	10.49 A	10.56 A	10.64 A	10.71 A
Open Circuit Voltage (Voc)	47.2 V	47.4 V	47.6 V	47.8 V	48.0 V	48.2 V
Short Circuit Current (Isc)	10.90 A	10.98 A	11.06 A	11.14 A	11.26 A	11.29 A
Module Efficiency	18.1%	18.3%	18.6%	18.8%	19.0%	19.2%
Operating Temperature	-40°C ~ +85°C					
Max. System Voltage	1500V (IEC/UL) or 1000V (IEC/UL)					
Module Fire Performance	TYPE 1 (UL 61730 1500V) or TYPE 2 (UL 61730 1000V) or CLASS C (IEC 61730)					
Max. Series Fuse Rating	20 A					
Application Classification	Class A					
Power Tolerance	0 ~ + 10 W					

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

MECHANICAL DATA

Specification	Data
Cell Type	Poly-crystalline
Cell Arrangement	144 [2 X (12 X 6)]
Dimensions	2108 X 1048 X 35 mm (83.0 X 41.3 X 1.38 in)
Weight	24.3 kg (53.6 lbs)
Front Cover	3.2 mm tempered glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	500 mm (19.7 in) (+) / 350 mm (13.8 in) (-) or customized length*
Connector	T4 series or H4 UTX or MC4-EVO2
Per Pallet	30 pieces
Per Container (40' HQ)	660 pieces

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

ELECTRICAL DATA | NMOT*

CS3W	400P	405P	410P	415P	420P	425P
Nominal Max. Power (Pmax)	298 W	302 W	305 W	309 W	313 W	317 W
Opt. Operating Voltage (Vmp)	36.0 V	36.2 V	36.4 V	36.6 V	36.8 V	36.9 V
Opt. Operating Current (Imp)	8.27 A	8.33 A	8.39 A	8.45 A	8.51 A	8.57 A
Open Circuit Voltage (Voc)	44.3 V	44.5 V	44.7 V	44.9 V	45.1 V	45.3 V
Short Circuit Current (Isc)	8.79 A	8.86 A	8.92 A	8.99 A	9.08 A	9.11 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m² spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.36 % / °C
Temperature Coefficient (Voc)	-0.28 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	42 ± 3°C

PARTNER SECTION

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement .CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.
Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

CSI Solar Co., Ltd.
199 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

Inverter

SUNNY HIGHPOWER PEAK3 125-US / 150-US

Cost effective
- Modular architecture reduces BOS and maximizes system uptime
- Compact design and high power density maximize transportation and logistical efficiency

Maximum flexibility
- Scalable 1,500 VDC building block with best-in-class performance
- Flexible architecture creates scalability while maximizing land usage

Simple install, commissioning
- Ergonomic handling and simple connections enable quick installation
- Centralized commissioning and control with SMA Data Manager

Highly innovative
- SMA Smart Connected reduces O&M costs and simplifies field-service
- Powered by award winning ennexOS cross sector energy management platform

SUNNY HIGHPOWER PEAK3 125-US / 150-US

A superior modular solution for large-scale power plants

The PEAK3 1,500 VDC inverter offers high power density in a modular architecture that achieves a cost-optimized solution for large-scale PV integrators. With fast, simple installation and commissioning, the Sunny Highpower PEAK3 is accelerating the path to energization. SMA has also brought its field-proven Smart Connected technology to the PEAK3, which simplifies O&M and contributes to lower lifetime service costs. The PEAK3 power plant solution is powered by the ennexOS cross sector energy management platform, 2018 winner of the Intersolar smarter EAWARD.

Technical Data	Sunny Highpower PEAK3 125-US	Sunny Highpower PEAK3 150-US
Input (DC)		
Maximum array power	187500 Wp STC	225000 Wp STC
Maximum system voltage	1500 VDC	
Rated MPP voltage range	705 V ... 1450 V	880 V ... 1450 V
MPPT operating voltage range	684 V ... 1500 V	855 V ... 1500 V
MPP trackers	1	
Maximum operating input current	180 A	
Maximum input short-circuit current	325 A	
Output (AC)		
Nominal AC power	125000 W	150000 W
Maximum apparent power	125000 VA	150000 VA
Output phases / line connections	3 / 3-PE	
Nominal AC voltage	480 V	600 V
Compatible transformer winding configuration	Wye-grounded	
Maximum output current	151 A	
Rated grid frequency	60 Hz	
Grid frequency / range	50 Hz, 60 Hz / -6 Hz ... +6 Hz	
Power factor at rated power / adjustable displacement	1 / 0.0 leading ... 0.0 lagging	
Harmonics (THD)	<3%	
Efficiency		
CEC efficiency	98.5 %	99.0 %
Protection and safety features		
Ground fault monitoring: Riso / Differential current	● / ●	
DC reverse polarity protection	●	
AC short circuit protection	●	
Monitored surge protection (Type 2): DC / AC	● / ●	
Protection class / overvoltage category (as per UL 840)	I / IV	
General data		
Device dimensions (W / H / D)	770 / 830 / 444 mm (30.3 / 32.7 / 17.5 in.)	
Device weight	98 kg (216 lbs)	
Operating temperature range	-25°C ... +60°C (-13°F ... +140°F)	
Storage temperature range	-40°C ... +70°C (-40°F ... +158°F)	
Audible noise emission (full power @ 1m and 25°C)	< 69 dB(A)	
Internal consumption at night	< 5 W	
Topology	Transformerless	
Cooling concept	OptiCool (forced convection, variable speed fans)	
Enclosure protection rating	Type 4X (as per UL 50E)	
Maximum permissible relative humidity (non-condensing)	100%	
Additional information		
Mounting	Rack mount	
DC connection	Terminal lugs - up to 600 kcmil CU/AL	
AC connection	Screw terminals - up to 300 kcmil CU/AL	
LED indicators (Status/Fault/Communication)	●	
SMA Speedwire (Ethernet network interface)	● (2 x RJ45 ports)	
Data protocols: SMA Modbus / SunSpec Modbus	● / ●	
Integrated Plant Control / Q on Demand 24/7	● / ●	
Off-grid capable / SMA Hybrid Controller compatible	– / ●	
SMA Smart Connected (proactive monitoring and service)	●	
Certifications		
Certifications and approvals	UL 62109, UL 1998, CAN/CSA-C22.2 No.62109	
FCC compliance	FCC Part 15, Class A	
Grid interconnection standards	IEEE 1547, UL 1741 SA - CA Rule 21, HECO Rule 14H	
Advanced grid support capabilities	L/HFRT, L/HVRT, Volt-VAr, Volt-Watt, Frequency-Watt, Ramp Rate Control, Fixed Power Factor	
Warranty		
Standard	5 years	
Optional extensions	10 / 15 / 20 years	
Type designation	SHP 125-US-20	SHP 150-US-20

Technical data as of May 2020 ● Standard features ○ Optional features – Not available

Toll Free +1 888 4 SMA USA
www.SMA-America.com

SMA America, LLC

Single Axis Tracker

Nextracker NX Gemini

GENERAL AND MECHANICAL

Tracking type	Horizontal single-axis, independent row
String voltage	1,500 V_{DC}
Typical row size	112 - 120 modules, depending on module string length
Drive type	NX patent-pending self-locking, distributed drive
Motor type	48 V brushless DC motor
Array height	Rotation axis elevation 1.9 to 2.5 m / 6'2" to 8'2"
Ground coverage ratio (GCR)	Typical range 28-50%
Modules supported	Mounting options available for most utility-scale crystalline modules
Bifacial features	Available with optimized central torque tube gap
Tracking range of motion	±50°
Operating temperature range	Array powered: -20°C to 55°C (-4°F to 131°F) AC powered: -40°C to 55°C (-40°F to 131°F)
Module configuration	2 in portrait. 4 x 1,500 strings per standard tracker. Partial length trackers available.
Module attachment	Self-grounding, electric tool-actuated fasteners standard. Clamping system optional.
Materials	Galvanized steel
Allowable wind speed	Configurable up to 235 kph (145 mph) 3-second gust
Wind protection	Intelligent wind stowing with self-locking, distributed drive system for maximum array stability in all wind conditions
Foundations	Standard W8 section foundation posts. Typically ~160 piers / MW.

ELECTRONICS AND CONTROLS

Solar tracking method	Astronomical algorithm with backtracking. TrueCapture™ upgrades available for terrain adaptive backtracking and diffuse tracking mode
Control electronics	NX tracker controller with inbuilt inclinometer and backup battery
Communications	Zigbee wireless communications to all tracker rows and weather stations via network control units (NCUs)
Nighttime stow	Yes
Power supply	ARRAY POWERED: NX Integrated DC pre-combiner & power supply AC POWERED: Customer-provided AC circuit

INSTALLATION, OPERATIONS AND SERVICE

PE stamped structural calculations and drawings	Included
Onsite training and system commissioning	Included
Installation requirements	Simple assembly using swaged fasteners and bolted connections. No field cutting, drilling or welding.
Monitoring	NX Data Hub™ centralized data aggregation and monitoring
Module cleaning compatibility	Compatible with virtually all standard cleaning systems
DC string monitoring	Available with array-powered option
Warranty	10-year structural, 5-year drive and control components
Codes and standards	UL 3703 / UL 2703 / IEC 62817

6200 Paseo Padre Parkway | Fremont, CA 94555 | USA | +1 510 270 2500 | nextracker.com
MKT-000077-C

Fixed Tilt System

GAMECHANGE SOLAR
REPOWERING THE PLANET

FAST INSTALL + HANDLES SLOPING GROUND

LESS POSTS WITH UNMATCHED SPAN AND UP TO 15% TERRAIN SLOPES

- Supports all poly, glass, and thin film modules
- Rugged design enables 175 mph [78 m/s] wind and 90 psf [4,300 Pa] snow loads
- Pull test and geotech services available
- Galvanized Z purlins have integrated trays for easy wire management
- 10° to 35° tilt with multiple inter-row spacing options


2-4Up in Portrait Single Post System


4-8Up in Landscape for Bifacial Modules


2-4Up in Portrait and 4-8Up in Landscape


East/West Post System

GameChange Solar

HEADQUARTERS
230 East Ave, Suite 100
Norwalk, CT, USA
Phone: +1 (203) 769-3900
Fax: +1 (646) 607-2223
gamechangesolar.com
media@gamechangesolar.com

RESEARCH & DEVELOPMENT CENTER
Brimfield, MA, USA

SERVICE SUPERCENTERS
Lakeland, FL, USA
Mesa, AZ, USA

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Wuxi, China
Mumbai, India
Dubai, UAE

Rev. 6-29-2021

FEATURES

- Industry's most flexible racking system handles undulating ground conditions
- Three axes of adjustability demanded by installers for navigating real world site conditions where significant adjustability in the field is required
- The unmatched span capability of MaxSpan™ means there are fewer foundations than competing systems, which means less posts and less post installation cost. As few as 180 posts per MW for 2 up in portrait. 130 posts per MW for 3 up in portrait.
- Over 5" [12.7 cm] vertical adjustment for fast top of post leveling
- Up to 4'-0" [122 cm] high ground clearance to allow for snow and vegetation
- 10° to 35° tilt with multiple inter-row spacing options
- Available for framed modules (including First Solar Series 6™) in 2 to 4 portrait and 4 to 8 landscape and for multiple glass on glass module configurations including First Solar Series 4™
- Full layout and engineering analysis for every project
- Integrated grounding and wire management
- WideFlange and roll formed posts available
- South facing and East/West system option
- Single and Dual Post configuration available
- StubPost™ - With adjustable extender to handle rolling ground without grading
  - 35% shorter and lighter stub posts for faster handling and faster post driving
  - Install StubPost™
  - Install extender and base bracket at the same time
- Pre-assembled "Swiss Army Knife" Beam:
  - One worker carry by weight
  - Just bolt it onto post extender, cut zip tie, swing braces and brackets into position, and bolt down
  - All hardware and brackets pre-attached and in assembly kit
  - Super simple staging: one unit replaces previous staging of nuts, bolts, brackets, braces, and beam
- MaxSpan™ with TwistClamps™
  - TwistClamps™ Increase Install Speed 400%
  - 400 modules per worker day versus 100 with nuts and bolts
  - One worker inserts and twists all preassembled TwistClamps™ into purlins
  - Follow-up workers slide modules under TwistClamps™
  - Workers then use torque wrenches to do just one final rotation on the pre-attached serrated flange nyloc nut to reach required torque and simultaneously grounds the module
  - Modules always align even if posts and beams are far out of alignment since workers can slide modules north and south under TwistClamps™
  - No power tools or hardware needed
  - No follow-up torquing operations required

TEST & CERTIFICATION

- Meet IBC and ASCE standards for structural loading
- Electrical bonding with GameChange top mount clamps or star washers included
- ETL / UL 2703 tested (similar to the relevant sections of IEC 61215 & 61730)
- Wind tunnel tested by industry leader CPP
- Independent assessment by Black & Veatch
- Warranty 20 years - Designed and engineered in USA

CALCULATIONS

- PE Stamped Drawings - Design loads according to local building codes: ASCE 7, NBC, Eurocode, AS1170, GB 50009
- 100% code compliant designs for any locality

PULL TEST & GEOTECH

- Vertical and lateral capacity of the post is determined by pull test
- Test data is then analyzed by our in-house engineering team in parallel with geotechnical report to give the most efficient embedment depths, spans and post type

MATERIAL

- Post: G235 [55 µm] galvanized steel (HDG ASTM A123 option also available)
- Galvanized Purlins, NS Beam, Brace: G90 [20 µm] galvanized steel. Standard up to G180 [40 µm] special order.
- Star bolt or ETL / UL top mount teethed module clamp: stainless steel & magnicoat
- Proprietary Integrated Hardware™: For faster structure assembly, module mounting and reduced O&M cost. Oversized Serrated Flange Nyloc Nut and Oversized Flange Star Bolt with integrated star washer eliminates the need for washers and star washers.

Appendix A – Environmental Resources Report

Appendix B – FAA - Determination of No Hazard to Air Navigation