A G E N D A
ISLE OF WIGHT COUNTY PLANNING COMMISSION
July 23, 2024

1. CALL TO ORDER

INVOCATION

PLEDGE OF ALLEGIANCE

2. ROLL CALL/DETERMINATION OF A QUORUM

3. ACTION ON REQUESTS TO WITHDRAW OR TABLE PENDING AGENDA ITEMS

4. APPROVAL OF AGENDA

5. CONSENT AGENDA

A. May 28, 2024 Planning Commission Regular Meeting Minutes

6. CITIZENS' COMMENTS

7. PUBLIC HEARINGS

A. CUP-7-24 Peace by the River Short-Term Rental

Application (CUP-7-24) of Jeremy Kooiman and Lucy Kooiman, property owners, for a conditional use permit to operate a short-term rental on approximately two acres located at 214 Shivers Mill Lane on tax parcel number 43A-06-025 in the Suburban Residential zoning district.

B. CUP-7-23 Orbit Road Utility Scale Solar Energy Facility

Application (CUP-7-23) of Elk Development, LLC, applicant, and William Sawyer, property owner, for a conditional use permit for a major utility service, specifically a three megawatt utility-scale solar energy generation facility on approximately 28.84 acres located on Orbit Road on tax parcel number 39-01-026 in the Rural Agricultural Conservation zoning district. The application includes a request to withdraw 22.02 acres from the Courthouse Agricultural and Forestal District.

C. CUP-03-24 Carrsville Modular Classroom

Application (CUP-3-24) of Todd Christiansen, applicant, and Isle of Wight County School Board, property owner, for a conditional use permit for a modular classroom on approximately 0.5 acres on tax parcels 66-01-010 and 66-01-010A located at 5355 Carrsville Highway (Rte. 58) in the Village Center zoning district. The current use of the property is as a primary educational facility and is the site of Carrsville Elementary School.

8. OLD BUSINESS

9. NEW BUSINESS

A. COUNTY ATTORNEY'S REPORT

B. PLANNING DIRECTOR'S REPORT

10. CLOSED MEETING

11. ADJOURNMENT

PLANNING REPORT

PLANNING REPORT

APPLICATION:

Application (CUP-7-24) of Jeremy Kooiman and Lucy Kooiman, property owners, for a conditional use permit to operate a short-term rental on approximately two acres located at 214 Shivers Mill Lane on tax parcel number 43A-06-025 in the Suburban Residential zoning district.

ELECTION DISTRICT:

D4

LOCATION:

The existing single-family dwelling is located to the rear of the Cedar Grove subdivision at 214 Shivers Mill Lane along a private road. The property abuts Brewers Creek to the rear. The current use of the property is single-family residential.

BACKGROUND:

The existing single-family dwelling was constructed in 2017 and was permitted in part through approval of a Chesapeake Bay Preservation Area Ordinance exception request that was granted by the Board of Supervisors in 2016. The Board of Supervisors also approved a Chesapeake Bay Preservation Area Ordinance exception request for a garden shed in 2019.

Additionally, the Board of Supervisors denied a conditional use permit request in 2020 to allow an accessory apartment to be located in the basement of the residence.

At their December 14, 2023, regular meeting, the Board of Supervisors adopted amendments to the Zoning Ordinance establishing a defined use type and supplementary use regulations for short-term rentals. Subsequent to these amendments being adopted, staff sent out notification letters to known short-term rental operators within the County and advised them of the ordinance changes and the process by which they needed to obtain a zoning permit. Mr. and Mrs. Kooiman applied for the short-term rental on March 19th, 2024, and staff received an objection in writing within the 30-day review period. The objection in writing is attached to this staff report.

In the Suburban Residential zoning district, short term rentals are permitted by right only after neighbor notification letters are sent to all adjacent property owners. If Community Development receives an objection in writing within 30 days of the date of sending the notification letter, then administrative approval of the application ceases until such time as a conditional use permit for the proposed short-term rental is approved by the Board of Supervisors with a recommendation by the Planning Commission per Section 5-5005.DD.1 of the Zoning Ordinance.

DESCRIPTION:

Peace by the River short-term rental will have a maximum overnight occupancy of 6 people, to include the use of 3 bedrooms in the dwelling. The concept plan shows 6 parking spaces available. Mr. Jeremy Kooiman is listed in the STR application as the 24-hour emergency contact that is responsible and available to address any conditions occurring at the short-term rental within 30 minutes. The short-term rental is advertised through online platforms such as AirBnB and Vrbo.

COMPREHENSIVE LAND USE PLAN:

The future land use designation for this parcel is Environmental Conservation. Appropriate uses for the EC land use designation include wetlands, farms, forest uses, open space, and limited park facilities. The area designated as EC should be preserved due to environmental constraints unless site-specific analysis demonstrates there are no environmental concerns in a specific area.

The proposed use is consistent with the comprehensive plan since the existing facilities located on the parcel have been approved and constructed based on a site specific delineation and any required exceptions to the Chesapeake Bay Preservation Area Ordinance requirements.

ORDINANCE REVIEW:

The zoning district classification for the subject property is Suburban Residential (SR). The SR zoning district is intended to provide for the majority of residential development for future population growth in areas served by public utilities. The district permits moderate density development in a manner that is consistent with the provision of a high-quality "suburban" character.

The applicant proposes a short-term rental establishment within an existing single-family dwelling which is permitted by right in the SR zoning district, only after the 30-day review period described above by which a conditional use permit is required if any objection in writing is received.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, no substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer, or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and
7. That the use(s) at the location proposed will not result in a multiplicity of saturation of similar uses in the same general neighborhood of the proposed use.

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may be applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads, peak period of traffic, and

proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact on the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5. Facilities for police, fire protection, sewerage, water, trash, and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and
10. The preservation of cultural and historic resources or landmarks.

Should the CUP be approved, the applicant will be required to submit a site plan for review and approval in accordance with Zoning Ordinance requirements and conditions of approval.

AGENCY REVIEW:

The application was forwarded to the following departments for their review:

- Fire Rescue: The facility would have little to no impacts on calls for service, therefore no objections.
- Sheriff's Department: There have been no incidents at this location within the past 6 years that the short-term rental has been in operation, therefore no objections.
- Health Department: No increase on residential septic system since there isn't an increase in the number of bedrooms.
- County Attorney: No objections

STAFF CONCLUSIONS:

Strengths:

1. The application is generally consistent with the Comprehensive Plan and can meet all ordinance requirements.
2. The proposed use will have minimal impact on community facilities and resources.
3. The proposed use appears to be in compliance with the recent ordinance amendments related to short-term rentals.
4. Granting the CUP will allow a short-term rental that existed prior to the ordinance changes, to continue to operate.

Weaknesses:

1. The use is located along a narrow private lane in close proximity to other residences and may cause impacts such as noise and odors.
2. There may be an increase in vehicular traffic along a private lane that already serves multiple residences.
3. Increasing the intensity of activities on the parcel may have negative impacts on sensitive environmental and natural features that surround the parcel.

STAFF RECOMMENDATION:

Based on the identified strengths and weaknesses, staff recommends approval of the Conditional Use Permit with the following conditions: 1) Check-in/Check-out times for guests may not occur earlier than 8:00 A.M. or later than 8:00 P.M. 2) No outdoor recreational activities are to occur after 7:00 P.M. 3) No use of outdoor fires or flame-grills are permitted. 4) Commercial vehicles used by guests are not permitted to use the on-site parking spaces. 5) No parking of vehicles associated with the short-term rental are to occur in the cul-de-sac circle or along Anna Drive. 6) An outdoor smoking receptable shall be installed for the disposal of cigarette butts.

ATTACHMENTS:

Description	Type	Upload Date
Application and Concept Plan	Backup Material	7/1/2024
Site Images	Backup Material	7/1/2024
Location Map	Backup Material	7/1/2024
Zoning Map	Backup Material	7/1/2024
Land Use Map	Backup Material	7/1/2024
Sheriff Department Comments	Backup Material	7/1/2024
Health Department Comments	Backup Material	7/1/2024
Short-Term Rental Application Materials	Backup Material	7/1/2024
Objection Received	Backup Material	7/1/2024

ORIGINAL

Revised 04/07/2023

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

RECEIVED
MAY 21 2024
By: A. Stephenson

#30065
CUP-7-24

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[✓] Conditional Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

The proposed use or activity is listed as a conditional use in the SR-1 zoning district as per Section 1-1017 \ 1018 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): _____ Yes _____ No

Proposed Use or Activity: TO CONTINUE OPERATING SHORT TERM RENTALS AS WE HAVE BEEN DOING SINCE JUNE OF 2018

B. PROJECT DESCRIPTION:

Project Name: PEACE BY THE RIVER

Property Address (if any): 214 SHIVERS MILL LN. CARROLLTON VA 23314

Election District: 04

Comprehensive Plan Designation: _____

The use permit will apply to 2 acres out of 2 total acres

Tax Parcel Identification #43A-06-025 Number of acres to be effected: 2

Tax Parcel Identification #_____ Number of acres to be effected: _____

Tax Parcel Identification #_____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water X Private Well _____

Public Sewer _____ Private Septic X

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): JEREMY & LUCY KOOIMAN

Address: 214 SHIVERS MILL LANE

City, State, Zip Code: CARROLLTON VIRGINIA 23314

Phone No: (757)328-3114 Email: PPCONSTRUCTION1@AOL.COM

Property Owner(s) Name(s): JEREMY & LUCY KOOIMAN

Address: 214 SHIVERS MILL LN.

City, State, Zip Code: CARROLLTON VIRGINIA

Phone No.: _____ Email: _____ Fax No.: _____

757 328 3114 PPCONSTRUCTION1@AOL.COM

Applicant Signature **Date** May 20th, 2024

Owner Signature *if different* **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: 5/24/24 Fees Paid: ✓

Tax Query: [ ] Current [ ] Delinquent Distribution Date: 5/24

Posted/Date to Post: _____

AGENCIES REFERRALS:

____ Department of Conservation & Recreation	____ Inspections
____ Economic Development	✓ Sheriff's Office
✓ Emergency Services	____ Town of Smithfield
____ General Services	____ Town of Windsor
____ Environmental Planner	____ VDOT
✓ Health Department	____ Schools
____ Transportation Manager	____ Budget & Finance
____ Commission of Revenue	✓ County Attorney
____ Other _____	

Verified By: CK Date: 5/24/24

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Jeremy & Lucy Kooiman

Address 214 Shivers Mill Lane
Street

Carrollton Virginia 23314
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
NA	Single-Family Dwelling

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
NA	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[X]
If yes, names of members: N/A

I do solemnly swear that the foregoing statement(s) and attachment(s), if any, are complete, correct, and true.

Applicant Jeremy Kooiman Applicant: _____ Date May 20th, 24
Printed or Typed Name Signature

Commonwealth of Virginia
County of ~~Isle of Wight~~ Suffolk

Subscribed and sworn to before me Cameron Alexander Cipcic,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 20th day of May, 20 24.

Notary Public

My Commission Expires 10-31-24

Cameron Alexander Cipcic NOTARY My Comm. Expires 10-31-24 7676049 PUBLIC COMMONWEALTH OF VIRGINIA

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

RECEIVED
MAY 21 2024
By: A. Stephenson

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

****Both checklist and application required upon submission to central permitting or application will notbe accepted****

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for an exception shall be certified as complete unless the following information is provided. ***The required number of copies may be increased or reduced with permission of the Zoning Administrator, depending on the review needs.*** Applicant(s) must have their signature(s) notarized on the disclosure of real estate holdings. All plans over 11"x17" in size are required to be folded to be processed for review.

- **Ten (10) copies of the following**
  - original, executed application
  - a statement of the reasons for seeking conditional or special use permit
  - narrative description of the property which shall include the tax parcel identification number
  - full size concept plan of the site to show all existing and proposed physical improvements and such otherinformation as is necessary to clearly indicate to the reviewing body that adequate provisions have been made for compliance with all standards for that particular use, the extent of the property to beso used on a given parcel or parcels, and information defining the requested exceptions. The plan shall be prepared by the appropriate authorized design professional licensed to practice in Virginia. No person shall prepare or certify design elements of site plans which are outside the limits of their professional expertise and license. Such document shall be drawn to scale and shall include the following information:
    - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
    - Title of drawing
    - Date of drawing
    - Existing wood line

- North arrow
- Scale bar
- Current zoning of parcel(s), including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)

☑ **One (1) original executed application**

☑ **One (1) digital copy of ALL application documents**

NA ☑ **One (1) reduced 11"x17" copy of concept plan**

☑ **Application fee submitted with the application. Checks should be made payable to treasurer, Isle of Wight, County**

NA ☑ **A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.**

NA ☑ Other information may be necessary to demonstrate compliance with all other applicable federal, state and County standards and regulations.

NA ☑ **All plans over 11"x17" must be folded.**

☑ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal willbe refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the appropriate reviewing body.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents, and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete, and correct information available. I understand that any section not completed in its entirety may delay the processing of this application.

JEREM KOOIMAN

Printed or Typed Name

Signature

May 20th, 2024

Date

Isle of Wight County

May 20th, 2024

17140 Monument circle

Isle of Wight, VA 23397

RE: Statement for seeking a CU

To all members of the Planning Commission and the Board of Supervisors.

In June of 2018 we opened up our home to host temporary guests through the Airbnb platform. During our 6 years of operating this business we have had zero incidents. The reviews on line rate us as Super Hosts with a rating of 4.95 out of 5 an outstanding achievement. Our guests not only rave and love the peace and tranquility they experience at our home, they also value our involvement during their stay, always ready and available if needed. Our place is called **PEACE BY THE RIVER and that is what they experience.**

The County has recently changed the rules with a new ordinance that affects our business. Grandfathering in existing businesses as ours is not an option. That being said, we are following the outlined process which includes applying for a CUP.

We have the full support of our neighbors with the exception of one, which came as no surprise. We are selective in whom we allow in our home and only approve guests with equally high and positive ratings. The majority are a couple or two, looking for a quiet getaway or professionals posted in the area for a temporary work assignment. No one is more invested in maintaining the peace we enjoy in our surroundings than us, an objective we have met successfully.

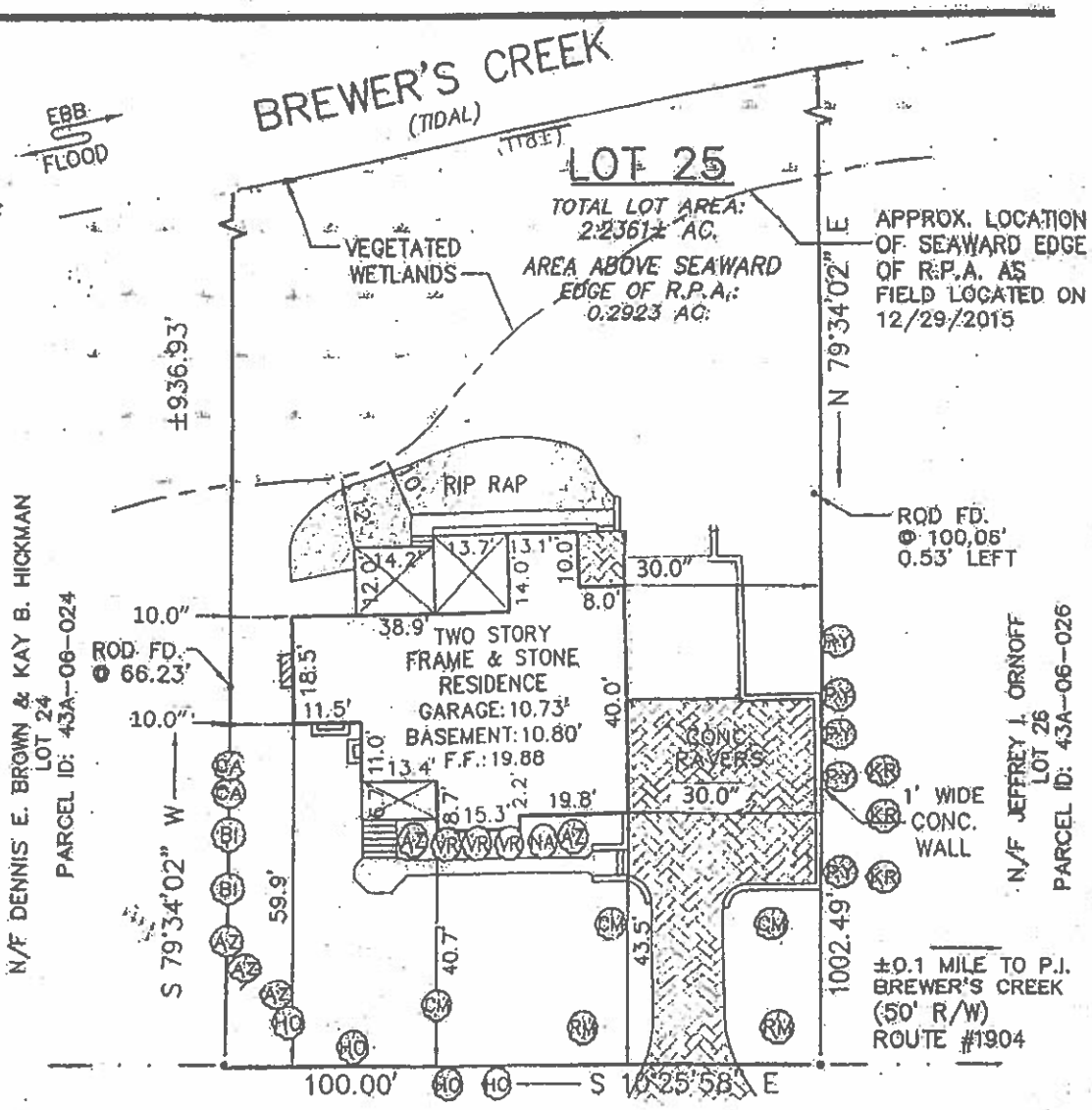
We have not only become dependent on this income but also a blessing to those who have stayed with us. Many have left as friends and thankful to have had a time of rest in our home. We have preapproved reservations on the books through august of 2025 and trust that you will grant us the CUP so we can continue to operate, serve our guests and also meet a much-needed service in Isle of Wight County,

Sincerely,

Jerry & Lucy Kooiman

Description of Property

Our property is located on 214 Shivers Mill lane, approximately 0.1 miles south of Brewers Creek Lane. The lot is located on the west side of Shivers Mill lane, a private gravel drive just of Anna Drive. The site consists of 2.2361 ± acres. The home is a single family residence tax parcel number 43 A-06-025



SHRIVER'S MILL LANE

PRIVATE LANE - GRAVEL DRIVE

LANDSCAPING SURVEY

RM DENOTES EXISTING TREE OR SHRUB
(SEE SHEET 3 OF 3 FOR TREE TABLE)

RECORD NORTH

COMMONWEALTH OF VIRGINIA
DONALD W. DAVIS
Lic. No. 1402(a)
Lic. No. 1418(b)
LAND SURVEYOR
9/25/17

SYMBOLS :
- PIPE FOUND
- IRON ROD SET
- IRON ROD FOUND
- CONC. MONUMENT

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE BY ME ON THIS DATE AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF THERE ARE NO ENCROACHMENTS OF BUILDINGS UNLESS SHOWN HEREON.

DAVIS & ASSOCIATES, P.C.
SURVEYORS - PLANNERS
YORK COUNTY, VIRGINIA

JOB LOCATION #214 SHIVER'S MILL LANE

PLAT OF THE PROPERTY OF:
ROBERT K. FAISON & SANDRA W. FAISON

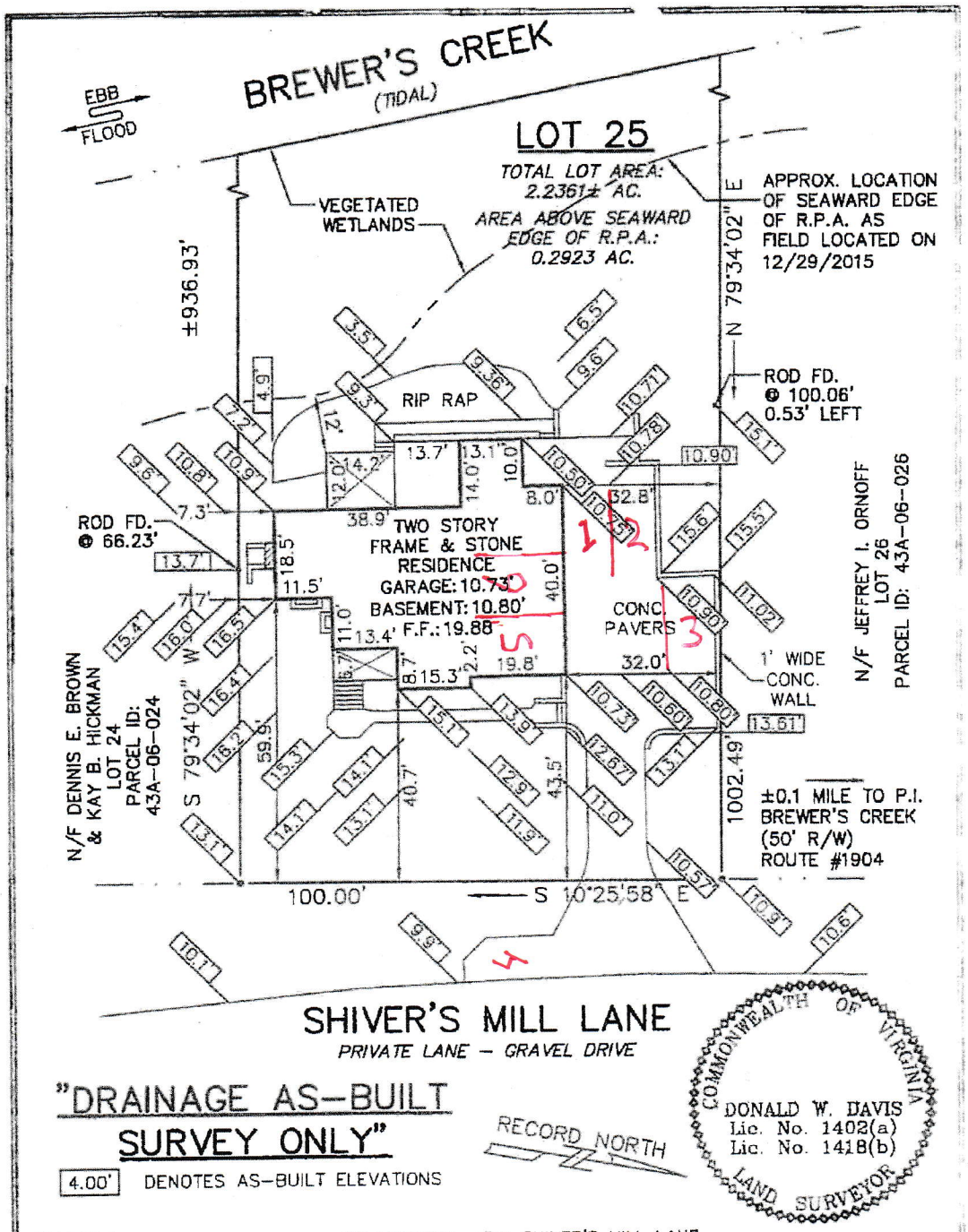
LOT 25

AS SHOWN ON:

SURVEY OF LOT 25

AS SHOWN ON COMPOSITE PLAN SUBDIVISION OF PROPERTY OF
C. L. OBREY
PREPARED BY J. J. ALFONSO, L.S. ON JULY 15, 1988

ISLE OF WIGHT COUNTY, VIRGINIA



"DRAINAGE AS-BUILT SURVEY ONLY"

4.00' DENOTES AS-BUILT ELEVATIONS

RECORD NORTH

COMMONWEALTH OF VIRGINIA
DONALD W. DAVIS
Lic. No. 1402(a)
Lic. No. 1418(b)
LAND SURVEYOR

SYMBOLS :
- PIPE FOUND
- IRON ROD SET
- IRON ROD FOUND
- CONC. MONUMENT

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE BY ME ON THIS DATE AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF THERE ARE NO ENCROACHMENTS OF BUILDINGS UNLESS SHOWN HEREON.

DAVIS & ASSOCIATES, P.C.
SURVEYORS - PLANNERS
YORK COUNTY, VIRGINIA

JOB LOCATION : #214 SHIVER'S MILL LANE

PLAT OF THE PROPERTY OF:
ROBERT K. FAISON & SANDRA W. FAISON

LOT 25

AS SHOWN ON

SURVEY OF LOT 25

AS SHOWN ON COMPOSITE PLAN SUBDIVISION OF PROPERTY OF
C. L. OBREY
PREPARED BY J. J. ALFONSO, L.S. ON JULY 15, 1988
ISLE OF WIGHT COUNTY, VIRGINIA

CODE: 15--0583	DWN.BY: S.J.M.	SCALE: 1" = 25'	TO: PPC CONSTRUCTION	DATE: 25 JULY, 2017



Facing Shivers Mill Lane from Anna Drive Cul-de-sac



Facing driveway from Shivers Mill Lane



Facing house from Shivers Mill Lane



Extra off-street space being used



Facing driveway from Shivers Mill Lane

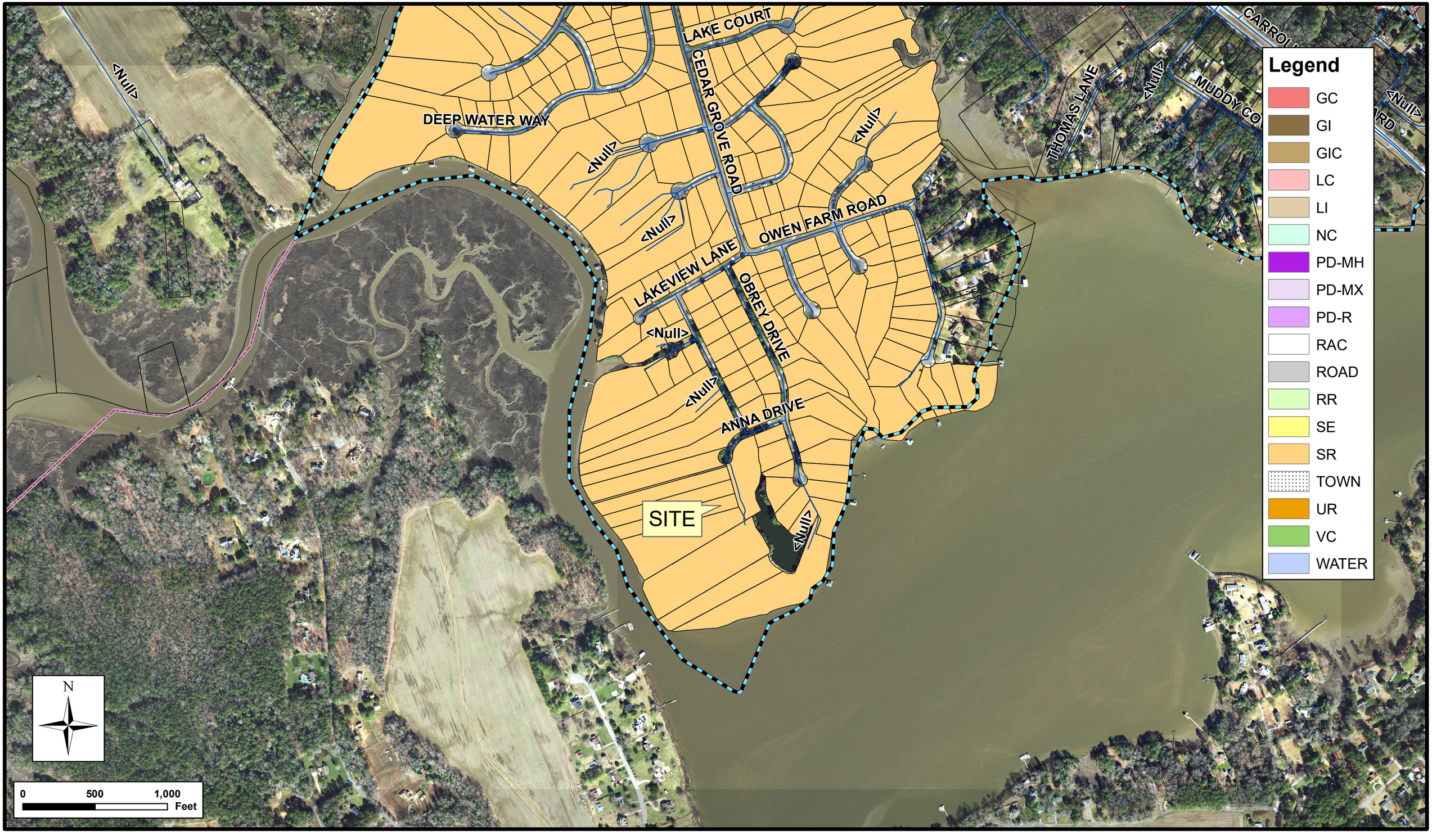


Facing house from Shivers Mill Lane

CUP-7-24 Peace by the River STR CUP Request - Location Map



CUP-7-24 Peace by the River STR CUP Request - Zoning Map



CUP-7-24 Peace by the River STR CUP Request - Land Use Map



ISLE OF WIGHT COUNTY SHERIFF'S OFFICE

P.O. Box 75 · 17110 Monument Circle · Isle of Wight, VA 23397
Phone (757) 357-2151 · Fax (757) 357-0706

James R. Clarke Jr.
Sheriff

Date: May 30, 2024

To: Caleb J. Kitchen, Planner 1

From: Major Joseph M. Willard Sheriff's Office

Subject: Conditional use permit (CUP 7-24) Munis #30065 First Submittal

Peace By The River Short Term Rental

214 Shivers Mill Lane Tax Map No. 43" -06-025

Mr. Kitchen after the review of the material submitted and a check of our records for incidents at this location which apparently has been in operation for the past 6 years (2018). There have been no recorded incidents since the rental has been established. The Isle of Wight County Sheriff's Office has no current objection to the application at this time

Major Joseph M. Willard

COMMONWEALTH OF VIRGINIA

WESTERN TIDEWATER ENVIRONMENTAL HEALTH DISTRICT

ISLE OF WIGHT COUNTY HEALTH DEPARTMENT

919 S Church St
SMITHFIELD, VIRGINIA 23431
757-279-3079

June 20, 2024

Caleb J. Kitchen, Planner I
County Planner 1
Isle of Wight County
Isle of Wight, Virginia 23397

RE: Comments as requested
43a-06-025

Dear Mr. Kitchen:

The sewage waste from the home located at 214 Shivers Lane will still be considered residential waste. No further information is require for this office provided there isn't an increase in the number of bedrooms.

If this office can be of any further assistance, please do not hesitate to call me at 279-03079.

Sincerely,

J. Butler

Jonette Butler
Environmental Health Specialist, Sr.

REGISTRATION # _____ December 18, 2023

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

SHORT TERM RENTAL APPLICATION

Property Owner Name: Jeremy & Lucy Koolman Parcel Number: _____

Address: 214 Shivers Mill Ln City, State, Zip Code Carrollton VA 23314

Phone Number: 757-328 3114 Email: ppcconstruction1@aol.com

Authorized Agent/Operator: ~~_____~~ N/A Email: _____

Address: _____ City, State, Zip Code: _____

Daytime Phone Number: _____ Evening/Weekend Phone Number: 757 943 7985

24/7 CONTACT INFORMATION

An authorized agent must be designated as a point of contact who is available to be contacted and to address conditions occurring at the short-term rental within 30 minutes.

Name: Jeremy Koolman **Email:** ppcconstruction1@aol.com

Address: 214 Shivers Mill Ln **City, State, Zip Code:** Carrollton VA 23314

Daytime Phone Number(s): 757-328 3114 **Evening/Weekend Phone Number(s):** 757 745-7501

How many bedrooms are at this address? 3 Maximum Occupants? 6

BY MY SIGNATURE:

1. I am aware a zoning permit is required. A zoning permit shall not be issued for a short-term rental until the following procedure has been completed:
   a. The zoning administrator is to send written notification by certified letter to the last known address of each adjacent property owner advising them of the proposed short-term rental and informing them that the permit may be issued if written comments are not received within thirty (30) days.
   b. The property shall also be posted with a sign pursuant to section 9-1006 for no less than fourteen (14) days prior to the expiration of the thirty-day period.
   c. If the zoning administrator receives no written objection from any property owner so notified within thirty (30) days of the date of sending the notification letter, and the zoning administrator determines that the proposed

short-term rental otherwise complies with the zoning ordinance and the requirements for sewage disposal, the zoning administrator may issue a zoning permit for the short-term rental.

d. If the zoning administrator receives written objection from any property owner so notified within thirty (30) days of the date of sending the notification letter, then the zoning administrator may not issue a zoning permit unless and until such time as a conditional use permit for the proposed short-term rental is approved by the

2. I am aware an authorized agent must be designated as a point of contact who is available to be contacted and to address conditions occurring at the short-term rental within 30 minutes. Physical responses to the site of the short-term rental are not required. The operator shall be notified in writing of failed attempts to receive timely responses from the authorized agent. Failure to respond in a timely manner shall result in a complaint subject to the penalties set forth below.
3. I am aware the Operator must register their short-term rental unit with the Community Development Department and receive a registration number.
4. The Operator authorizes County employees to enter the subject property upon reasonable advanced written notice to the Operator, at least one (1) time during the calendar year for which registration is valid, to verify the short-term rental is being operated in accordance with applicable regulations.
5. The zoning permit may not be transferred.
6. No more than one (1) short term rental may be operated on any lot.
7. Operators may enter into rental agreements with only one (1) party per legal dwelling unit per twenty-four (24) hour period.
8. A residential dwelling unit located within a building that contains three (3) or more dwelling units may not be operated as a short-term rental.
9. The maximum number of lodgers per night, over the age of eighteen (18) years, shall not exceed two persons per bedroom but in no case shall exceed sixteen persons six (6). This number shall be reduced to conform to the occupancy requirements of the Virginia uniform Building code and/or the Virginia Department of Health.
10. The number of persons allowed to gather at a short-term rental at any one time shall not exceed twice the maximum number of permitted overnight guests, including children. Only the maximum number of overnight guests shall be permitted at a short-term rental between the hours of 10:00 PM and 7:00 AM. Short-term rentals shall not be used as event centers as defined by the Zoning Ordinance.
11. Operators must obtain a business license and register for transient occupancy and state sales tax.
12. Short term rentals must meet current building and zoning regulations and be subject to a safety inspection from the County to confirm the installation of smoke alarms, fire extinguisher and a posted emergency exit plan prior to permit approval.
13. One off-street space per guest room is required in addition to the parking required for the house.
14. No visible evidence of the conduct of a short-term rental is allowed on the outside of the property.
15. The owner/operator shall not prepare meals for guests.
16. Operator shall provide proof of liability insurance to rental activity at registration and each subsequent renewal of at least one million dollars. Such insurance coverage must remain in place at all times the short-term rental is being operated.
17. Accessory structures, not including permitted accessory dwelling units, shall not be used or occupied as short-term rentals.
18. All advertisements for any short-term rental shall include the short term rental registration number for such dwelling.
19. A zoning permit for a short-term rental may be revoked by the Zoning Administrator, or designee, for the following reasons:

a. In the event of three (3) or more substantiated complaints of violation of applicable state or local laws, ordinances, and regulations, as they relate to short term rentals, within a calendar year; or
b. Authorized agent's failure to respond in a timely manner more than twice; or
c. Failure to maintain compliance with any regulation set forth in this section. An Operator whose short-term rental zoning permit has been revoked shall not be eligible to receive any new short term rental zoning permit for the remaining portion of the calendar year in which the permit was revoked, and for the entire following year.

20. Except as provided in this section, nothing herein nor the issuance of a zoning permit shall be construed to prohibit, limit, or otherwise supersede existing local authority to regulate short term rental of property through general land use and zoning authority. Nothing in this section shall be construed to supersede or limit contracts or agreements between or among individuals or private entities related to the use of real property, including recorded declarations and covenants; the provisions of condominium instruments of a condominium created pursuant to the Condominium Act (§ 55-79.39 et seq.) of the Code of Virginia, 1950, as amended; the declaration of a common interest community as defined in Code of Virginia, 1950, § 55-528, as amended; the cooperative instruments of a cooperative created pursuant to the Virginia Real Estate Cooperative Act (§ 55-424 et seq.) of the Code of Virginia, 1950, as amended; or any declaration of a property owners' association created pursuant to the Property Owners' Association Act (§ 55-508 et seq.).

I, the undersigned applicant, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete, and correct information available.

Signature of Authorized Agent/Operator _____ **Date** 3/18/24

DO NOT ACCEPT UNLESS THIS DOCUMENT IS PRINTED WITH A COLOR BACKGROUND, CONTAINS A VOID PANTOGRAPH AND A MICROPRINT BORDER

Gerald H. Gwaltney
Commissioner of the Revenue
P.O. Box 107
Isle of Wight, VA 23397

2024 BUSINESS LICENSE

License Number	**10950**
Issue Date	01/08/2024
Expiration Date	12/31/2024
Category	REPAIR PERSONAL BUS OTHR SERVS
Type	BED AND BREAKFAST CATEGORY 1
NAICS	
Business Account Number	105164
Business Phone Number	757-328-3114
Customer Number	124664

BUSINESS LOCATION

214 SHIVERS MILL LN
CARROLLTON, VA 23314

BUSINESS NAME & MAILING ADDRESS

JERRY & LUCY KOOIMAN
JERRY & LUCY KOOIMAN
214 SHIVERS MILL LN
CARROLLTON, VA 23314

NOTICE: This license becomes null & void if ownership, business name or address is changed. All applicable building & zoning regulations pertaining to business location must be followed.

Gerald H. Gwaltney
Commissioner of the Revenue

Total Received	**$0.00**

0935554202480003857160000005000 5

*** POST THIS LICENSE IN A CONSPICUOUS PLACE ***

State Farm Fire and Casualty Company
A Stock Company With Home Offices In Bloomington, Illinois

PO Box 2356
Bloomington IL 61702-2356

AT2 H-07-162C-FC0F F HW
3200

KOOIMAN LUCY & JERRY
214 SHIVERS MILL LN
CARROLLTON VA 23314-2004

RENEWAL DECLARATIONS

AMOUNT DUE **None**
Payment is due by TO BE PAID BY MORTGAGEE

Policy Number 46-CX-T403-5

Policy Period 12 Months
Effective Dates NOV 28 2022 to NOV 28 2023
The policy period begins and ends at 12:01 am standard time at the residence premises

Homeowners Policy

Location of Residence Premises
214 SHIVERS MILL LN
CARROLLTON VA 23314-2004

Your State Farm Agent
PENDERGAST INSURANCE AGY
498 S INDEPENDENCE BLVD
VIRGINIA BCH VA 23452-1164

Phone (757) 499-6813

Construction Frame
Year Built 2017

Roof Material Composition Shingle
Roof Installation Year 2017

Automatic Renewal
If the **POLICY PERIOD** is shown as **12 MONTHS**, this policy will be renewed automatically subject to the premiums rules and forms in effect for each succeeding policy period. If this policy is terminated we will give you and the Mortgagee/Lien holder written notice in compliance with the policy provisions or as required by law.

IMPORTANT MESSAGES

NOTICE Information concerning changes in your policy language is included. Please call your agent with any questions. Please help us update the data used to determine your premium. Contact your agent with the year each of your home's utilities (heating/cooling, plumbing, or electrical) and roof were last updated.

PREMIUM

Annual Premium	$1 947 00
Your premium has already been adjusted by the following:	
Utility Rating Credit	Home/Auto Discount
Claim Record Discount	Loyal Customer
Total Premium	**$1 947 00**

3200 07
20 002754 H

StateFarm

NAMED INSURED	MORTGAGEE AND ADDITIONAL INTERESTS
KOOIMAN, LUCY & JERRY	

Mortgagee
LOANDEPOT COM LLC
ISAOA/ATIMA
PO BOX 7114
TROY MI 48007-7114

Loan Number
104955450

SECTION I - PROPERTY COVERAGES AND LIMITS

Coverage	Limit of Liability
A Dwelling	$ 755,400
Other Structures	$ 75,540
B Personal Property	$ 566,550
C Loss of Use	$ 226,620
Additional Coverages	
Arson Reward	$1,000
Credit Card, Bank Fund Transfer Card, Forgery, and Counterfeit Money	$1,000
Debris Removal	Additional 5% available/$1,000 tree debris
Fire Department Service Charge	$500 per occurrence
Fuel Oil Release	$10,000
Locks and Remote Devices	$1,000
Trees, Shrubs, and Landscaping	5% of Coverage A amount/$750 per item

SECTION II - LIABILITY COVERAGES AND LIMITS

Coverage	Limit of Liability
L Personal Liability (Each Occurrence)	$ 500,000
Damage to the Property of Others	$ 1,000
M Medical Payments to Others (Each Person)	$ 5,000

INFLATION

Inflation Coverage Index: 337.6

DEDUCTIBLES

Section I Deductible	Deductible Amount
Other Losses	$ 1,000
Hurricane 2.00%	$ 15,108

LOSS SETTLEMENT PROVISIONS

A1 Replacement Cost - Similar Construction
B1 Limited Replacement Cost - Coverage B

OCT - 2022

HO-3006

FORMS OPTIONS AND ENDORSEMENTS

HW-2146	Homeowners Policy
Option JF	Jewelry and Furs $1,500 Each Article/$2,500 Aggregate
HO-2713	Hurricane Duration Deductible
HO-2732	Back-Up of Sewer or Drain
HO-2337.1	*Amendatory Endorsement
	*New Form Attached

ADDITIONAL MESSAGES

State Farm® works hard to offer you the best combination of price, service, and protection. The amount you pay for homeowners insurance is determined by many factors such as the coverages you have, the type of construction, the likelihood of future claims, and information from consumers reports.

Other limits and exclusions may apply - refer to your policy

Your policy consists of these Declarations, the Homeowners Policy shown above, and any other forms and endorsements that apply, including those shown above as well as those issued subsequent to the issuance of this policy.

This policy is issued by the State Farm Fire and Casualty Company.

Participating Policy

You are entitled to participate in a distribution of the earnings of the company as determined by our Board of Directors in accordance with the Company's Articles of Incorporation, as amended.

In Witness Whereof, the State Farm Fire and Casualty Company has caused this policy to be signed by its President and Secretary at Bloomington, Illinois.

Lynne M. Youell
Secretary

Michael T. Tipsord
President

StateFarm

Your coverage amount....

It is up to you to choose the coverages and limits that meet your needs. We recommend that you purchase a coverage limit at least equal to the estimated replacement cost of your home. Replacement cost estimates are available from building contractors and replacement cost appraisers, or, your agent can provide an Xactware estimate using information you provide about your home. We can accept the type of estimate you choose as long as it provides a reasonable level of detail about your home. State Farm® does not guarantee that any estimate will be the actual future cost to rebuild your home. Higher limits are available at higher premiums. Lower limits are also available, which if selected may make certain coverages unavailable to you. We encourage you to periodically review your coverages and limits with your agent and to notify us of any changes or additions to your home.

How-to · Host

Host liability insurance

Host liability insurance, a part of AirCover for Hosts, provides Hosts with $1 million in coverage in the rare event you are found legally responsible for a guest getting hurt or their belongings being damaged or stolen while they're staying at your place. People who help you host, like Co-Hosts and cleaners, are also included, so you can feel confident hosting on Airbnb.

IN APPITION TO OUR HOMEOWNERS POLICY AIRBNB PROVIDES UP TO 1 MILLION IN LIABILITY COVERAGE

Start a liability claim

File a claim if a guest gets hurt or their belongings are damaged.

Go to intake form

What's covered

Host liability insurance covers you if you're found legally responsible for:

- Bodily injury to a guest (or others)
- Damage to or theft of property belonging to a guest (or others)
- Damage caused by a guest (or others) to common areas, like building lobbies and nearby properties

Host liability insurance doesn't cover:

- Damage or injury resulting from something done intentionally

- Damage to your place or belongings caused by a guest (that's covered by Host damage protection)
- Other exclusions apply

The claims process

If you need to file a claim, just fill out our **liability insurance intake form**. The info will be sent to our trusted third-party insurer, who will assign your claim to a representative. They'll resolve your claim according to the terms of the insurance policy.

No opt-in required

AirCover for Hosts and its benefits are always included and always free. By simply agreeing to list or continuing to list a property on Airbnb, you are automatically covered whenever you host a stay booked on Airbnb.

If you want to opt out

Email us from the email address associated with your Host account. Be sure to include the exact title of your listing, your full name, and the phone number associated with your Host account.

The email link above is only for opting out.

Please note that Hosts in the UK can't opt out of this free liability insurance.

To learn more about Host liability insurance, go to the **comprehensive program summary**.

Disclaimer: Host liability insurance doesn't cover Hosts who offer stays through Airbnb Travel, LLC; Hosts of **Experiences**; or Hosts who offer stays in **Japan**. Keep in mind that all coverage limits are shown in USD, and that there are other **terms, conditions, and exclusions**. If you're hosting in the UK, the Host liability insurance policy is underwritten by Zurich Insurance Company Ltd., and is arranged and concluded at no additional cost for UK Hosts by Airbnb UK Services Limited—an appointed representative of Aon UK Limited, authorized and regulated by the Financial Conduct Authority. Aon's FCA register number is 310451. You can check this on the **Financial Services Register** by visiting the FCA's website or contacting the FCA on 0800 111 6768. Host damage protection isn't related to Host

- can access the full details of the insurance intermediary **here**.

This article is part of **Getting protected through AirCover for Hosts**, a guide about damage and liability coverage.

Did this article help? Yes No

Related articles

Host

Host damage protection

Host damage protection, a part of AirCover for Hosts, provides Hosts with $3 million in coverage in the rare event your place or belongings ...

Host

Getting protected through AirCover for Hosts

AirCover for Hosts is top-to-bottom protection for Airbnb Hosts.

Experience Host

Validating your license and insurance documents

We'll send you a message with a link to upload your documentation for validation through our partner, Evident.

Contact Superhost support

Our dedicated Superhost support team is here to help Hosts like you.

Contact us

You can also **give us feedback.**

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Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

March 20, 2024

Dear Property Owner:

Please be advised that the Department of Community Development/Planning and Zoning of Isle of Wight County has received a request for a Zoning Certification from Jeremy & Lucy Kooiman to locate a short-term rental space at 214 Shivers Mill Ln, Carrollton, Virginia, to be suitable for occupancy for dwelling, sleeping, or lodging purposes.

Pursuant to the Isle of Wight County Zoning Ordinance, before this request can be permitted, you are required to be given notice as an adjacent property owner. If you have any comments in opposition to this request, they must be made in writing and received by this office within thirty (30) days of the date of this notification.

If you have any questions regarding this notification, please feel free to contact me at 757-365-3660.

Best regards,

Rachel Bass

Rachel Bass
Zoning Coordinator
Isle of Wight County

P. O. Box 80
17140 Monument Circle
Isle of Wight, VA 23397
(757) 357-9206
www.co.isle-of-wight.va.us

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF COMMUNITY DEVELOPMENT

April 11, 2024

Jeremy & Lucy Kooiman

214 Shivers Mill Ln

Carrollton, VA 23314

Mr.& Mrs. Kooiman,

Please be advised that Isle of Wight County has received a letter opposing your request to operate a short-term rental on your property.

According to the regulations for short-term rentals, since written opposition has been received, administrative approval of this request has ceased. If you would like to proceed applying for a short-term rental a conditional use permit is required. I have enclosed information on the Conditional Use Permit process and an application for your consideration.

If you have any questions, please contact me at 757-365-6306 or rbass@iwus.net.

Sincerely,

Rachel Bass

Rachel Bass

Zoning Coordinator

Isle of Wight County

From: Mr. Jeffrey I. Ornoff
212 Shivers Mill Ln.
Carrollton, VA 23314

Certified Mail: 7014 1200 0001 7697 3549

To: Ms. Rachel Bass
Zoning Coordinator
P. O. Box 80
17140 Monument Circle
Isle of Wight, VA 23397

Date: April 10, 2024

Dear Ms. Bass,

In response to your letter dated March 20, 2024, concerning your office's request from Jeremy and Lucy Kooiman to locate a short-term rental space at 214 Shivers Mill Ln. Carrollton, Virginia. I confirm that I am the owner of the adjacent property and that I absolutely, **OPPOSE** having a short-term rental business, or any other kind of commercial business, being operated in such close proximity to my Suburban Residential home. I **OPPOSE** it now, just as I **OPPOSED** it when I filed my complaint to the Isle of Wight County Board of Supervisors (almost 5 years ago) on May 28, 2019. At that time, both short-term rentals as well as "unpermitted" accessory use apartments were illegal in Isle of Wight County.

1. My neighborhood was an extremely quiet and peaceful place to live, prior to the Kooimans building their home, specifically designed to accommodate short-term rental guest in a secretly unknown and unpermitted accessory use apartment in the basement.

2. On April 16, 2020, the Board of Supervisors unanimously denied the Kooimans' after-the-fact Conditional Use Permit application for their illegal accessory use apartment, which was being used as a short-term rental business, The Board found it to be injurious to the use and enjoyment of other property in the immediate vicinity. The Board recognized that the short-term rental business was interfering with the quality of life of the Kooimans' neighbors, most especially me as the adjacent neighbor. **(A video of the Vote can be seen on the official IOWC website, under old business.)**

3. But here's what I don't understand. As a result of the vote, NOTHING, absolutely NOTHING was done by the County to impede the Kooimans from continuing to advertise and rent out their unpermitted 1,145 square foot apartment as a short-term rental. Let me quote directly from their advertisement. It described the apartment as follows: ***"Your rental consists of two bedrooms, a fully equipped kitchen, dining room, living room with fireplace, bathroom, screened-in porch, laundry area (washer & dryer), and a sitting area with a gas BBQ grill for your use."*** The advertisement also included pictures of each and every room in the basement apartment. And, further down in the advertisement it stated, ***"Your rental encompasses the entire first floor of this beautiful home, very private and your rental is exactly as shown in the pictures."*** At no time ever**,** and I repeat**, EVER** did the Kooimans advertise or rent out, two rooms to two people. In fact, just the opposite was true. Further down in the same advertisement, under <u>house rules,</u> it

said, ***"Max guests 2-4 adult sleeping arrangements, please contact us."*** How was this allowed to continue if the Board of Supervisors recognized that the use of this apartment for short-term rental was injurious to the use and enjoyment of my property? Where is the transparency that my Board of Supervisors so often boast about? There is no transparency here. I can only hope that now since the County has enacted its new short-term rental ordnance that it somehow gives them better legal standing and the ability to finish what they started when they denied the Kooimans' after-the fact Conditional Use Permit for the accessory use apartment. I pray this is the reason, and I hope that the Board of Supervisors will soon deny the Kooimans' application for a short-term rental Zoning Certificate.

4. However, after realizing the BOS vote did nothing to alleviate my situation, I filed a civil case against the Kooimans in the IOWC Circuit Court on April 2, 2021, for violating their covenant deed restrictions. In particular a restriction that states, no basement shall at any time be used as a residence, temporarily or permanently. The very same advertisement that was referenced in my letter to the BOS dated May 6, 2020, was introduced as evidence in the Circuit Court. The Judge determined from the evidence that the Kooimans had indeed established a separate apartment residence in their basement. On November 2, 2022, The Court Ordered an Injunction barring the Kooimans from allowing anyone to rent or lease the basement. The Order also barred the Kooimans from allowing any person to reside in the basement for any period of time. Furthermore, if the Kooimans should choose to rent the remainder of their house, the Order also barred the Kooimans from remaining on the property, due to another restriction in the covenant that restricts the lot to only single-family usage, not multi-family usage. My point is this! How is it that the Circuit Court Judge could so easily come to the decision that the basement still remained a separate apartment residence, even though the BOS denied the Kooimans' after-the-fact application for the accessory use apartment? As a tax paying citizen and constituent of Isle of Wight County, I think I deserve an answer from my elected Leaders.

5. The Kooimans' short-term rental would not have been possible had it not been for the County approving an **after-the-fact** exception to the Chesapeake Bay Preservation Act, (CBPA). This exception was for an unpermitted 33% increase over the maximum allowed impervious area. It appears obvious now, that the Kooimans had enlarged their driveway in preparation of secretly turning their basement into an accessory use apartment for the purpose of creating a short-term rental business. The Virginia State Authority that manages the (CBPA), was never informed by IOWC that the overage was being used for additional parking for a short-term rental business. I also realize that the County had no way of knowing this since both the driveway and the basement apartment were intentionally built by the Kooimans without obtaining prior permits.

6. Whereas, my lot and the Kooimans' lot are extremely narrow properties, the driveway now comes all the way to my property line and it also extends to the back of the yard. In other words, the aircraft carrier sized driveway is practically right underneath two of my bedroom windows. You cannot help but hearing all the noise from the multitude of vehicles arriving and departing from the Kooiman's property. I hear passenger doors and trunks opening and being slammed shut at all hours of the night. I can even hear it as far away as my living room. It's even louder if my windows are open. (which they seldom

are any more). The sounds of all the short-term renters coming and going, far exceed the amount of noise generated by a single family living in a home in a normal suburban residential neighborhood.

An actual example from October 2021: Two of the Kooimans' rental guests were on a business trip doing work for Dominion Energy. They stayed at the Kooimans' Hotel for **38 nights**. Both of the guests each had their own separate service truck, with very loud safety back-up warning alarms. Each morning when they departed for work at 5:00 AM, the startling sound from the back-up alarms would "alarmingly" wake both me and my dog from deep sleep. My dog immediately staring barking and growling as if my house was being intruded upon. Likewise, in the evenings, usually around 6:30 -7:00 PM, the quests would return from work, and the high-pitched sounds of the alarms would interrupt my enjoyment of my dinner while I tried to watch the evening news on television. The only noise I'm sure the Kooimans heard was the sound of money going into their banking account.

7. Because of the Kooiman short-term rental business, I no longer feel like I actually live in a suburban residential neighborhood anymore. That would imply that I know who my neighbors are. I have completely different people occupying the Kooimans' house on any given day. These people are not my neighbors. They are perfect strangers and because of it, I no longer feel safe in my own home. In fact, I hardly go out of my house anymore.

8. Even my legal rights to expect law enforcement to protect me and my property from illegal trespassers and criminals has been jeopardized as a result of the Kooimans' short-term rental business.

9. Fire and Safety Hazards are now a higher risk due to the Kooimans' short-term rental business. At times both Kooimans' guests as well as their family create a potential fire hazard by double-parking their cars on Anna Drive, where it intersects with Shivers Mill Ln. According to Board Supervisor, Mr. Joel Acree, who was a former Fire Captain for the Carrollton Volunteer Fire Department, said in the March 2024 meeting, this area in the circle of Anna Drive is used as a staging area by the Fire Dept. Also, I have already seen on a couple of occasions, some of Kooimans' short-term rental guests throwing lit cigarette butts into my yard behind my garage. Even Mr. Kooiman himself, while building his house, tried to burn down my garage by burning construction material in close proximity to the garage. The fire caused damage to the vinyl siding. Later that same day after the Fire Department extinguished the fire, Mr. Kooiman in his arrogance, started another fire and went home for the evening leaving the fire still burning and unattended.

10. Whether or not the short-term rental business is conducted in the basement apartment or in any other part of the Kooimans' house, it matters not! It would still be injurious to my use and enjoyment of my property, as well as interfere with my quality of life.

11. How many short-term rentals are Mr. and Ms. Kooiman planning on operating in Isle of Wight County? Under the new short-term rental ordnance. Specifically, Section 5-5005 – Supplementary use regulations for commercial use types, Part DD Short Term Rentals.

Sub-part 8, states: ***"A residential dwelling unit located within a building that contains three (3) or more dwelling units may not be operated as a short-term rental."*** Why are Mr. and Mrs. Kooiman using one of their Heritage Apartment dwelling units as a short-term rental? The new ordnance makes it perfectly clear that such use is **not permitted**. The Kooimans have advertisements on both Airbnb and Vrbo websites. Will this short-term rental be ordered to cease-and desist? **(See Airbnb Apartment and Vrbo Apartment enclosures or internet links).**

12. The Kooimans continually misrepresented the status of their accessory apartment which they used for their illegal short-term rental business. According to a letter received from a FOIA request, Mr. Kooiman told County officials that there were no bedrooms on the lower level of the home; that the pictures in their on-line ads were of rooms located in the main dwelling; that no accessory apartment existed; that he made no changes to the basement since he received his certificate of occupancy. Note:(The certificate was issued on November 15, 2017.); Mr. Kooiman told Staff officials, that because of the limited choices Airbnb gives users to describe their rental units on the website, he explained he chose "apartment", as the most accurate way to describe his bedroom rentals which could be accessed separately from the rest of the house. **(See BZA Staff Report)** and **(See Certificate of Occupancy)**

13. According to the same BZA report, Mr. Art Berkley, the County Building Inspector Director, who performed the occupancy inspection, stated that Mr. Kooiman told him that the basement was to be used as a home office. On October 11, 2019, after numerous delays caused by Mr. Kooiman, Inspector Berkley, finally managed to perform another inspection the Kooiman' basement and found that Mr. Kooiman had in fact converted to offices into two bedrooms. On November 25, 2019, the County finally figured out what the Kooimans' advertisements were telling them all along, **the basement did in fact constitute a separate dwelling and qualified as an accessory apartment.**

14. After all the previous misrepresentations made by Mr. and Mrs. Kooiman, which are documented in the BZA report, I am simply amazed at the ease with which the Kooimans can simply ignore their past responses to County Officials and move on to a completely new misrepresentation. The Kooimans tried to sell a new story to the BOS and well as sell it to the Circuit Court. They are now claiming they built their basement apartment with family and aging parents in mind. They also claimed that only when they not using it for family, that they would "occasionally" host short-term rental guests. The Kooiman's even went as far as saying that they did not even think about using the apartment as an Airbnb until after they moved into the house after receiving their Certificate of Occupancy. (This story is a long way from Kooimans' early claim that there simply was no apartment in the basement.) Their new story is further unraveled and comes apart when you look at the Kooiman's latest Airbnb advertisements. On both of their Airbnb advertisements, the one for the entire house and the one for the Heritage Apartment unit. They both show on the **last page** of the adds: "Hosted by Lucy and Jerry", and just under that the add shows that they joined Airbnb in January of 2017. **That's 10 months prior to receiving their certificate of occupancy.** It seems to me that the Kooimans put a lot of thought into opening an Airbnb with plenty of time to build the driveway and the

accessory apartment, both unpermitted and both suitable for their short-term rental business. All of it long before moving into their house. Also please notice on the last page of the advertisements where it the Kooimans have had 111 reviews. I assume that not all their customers have left reviews, but even if my assumption is wrong, 111 reviews pretty much shows that the Kooimans' family is not using the basement apartment as often as they would have you believe. This all leads me to a very important question for the Board of Supervisors. How do you ever expect to be able to enforce short-term rentals, at least here by the Kooimans, where they have continuously tried to mislead you. **(See Airbnb Entire Home Rental, Enclosure or Internet Links)**

15. There can be little doubt that I have always opposed the Kooimans commercial short-term rental business, whereas 5 years ago, I filed a complaint about it to the Board of Supervisors, when STRs were illegal. I also filed a civil case against the Kooimans 3 years ago in the Circuit Court for violating their deed restrictions for operating a short-term rental business out of their illegal basement apartment. So, as you can clearly see, I rightfully OPPOSE with good cause the Kooimans request for a Zoning Certificate for a commercial short-term rental business. Based on my personal experience of dealing with the Kooimans and their illegal short term rental business, I believe it makes me qualified to say that short-term rentals have no business in Suburban Residential neighborhoods. There's absolutely nothing neighborly about them. They only serve to pit neighbors against neighbors and they should be banned in Isle of Wight County. I beg you! Please **DO NOT** approve a Zoning Certification for the Kooimans. This is not the right location for a short-term rental business, and based on the Kooimans' past and present history, they certainly do not merit one.

Respectfully,



Jeffrey I. Ornoff
212 Shivers Mill Ln.
Carrollton, VA 23314
Ph: (757) 287-8192
Email: jiornoff6@charter.net

Airbnb Apartment:
https://www.airbnb.com/rooms/775210193069129548?adults=1&children=0&enable_m3_private_room=true&infants=0&pets=0&check_in=2024-03-03&check_out=2024-03-08&source_impression_id=p3_1709076680_WyqDWhIVzWYVHGoz&previous_page_section_name=1000&federated_search_id=1e9300d4-cb81-4425-9546-9d1ef471866e

Vrbo Apartment:
https://www.vrbo.com/3468998?dateless=true&x_pwa=1&rfrr=HSR&pwa_ts=1709077058931&referrerUrl=aHR0cHM6Ly93d3cudnJiby5jb20vSG90ZWwtU2VhcmNo&useRewards=true&adults=2&regionId=86911&destination=Carrollton,+Virginia,+United+States+of+America&destType=MARKET&latLong=36.946815,-76.560508&searchId=0a2eb53c-7b7c-4c16-8700-f466db532f2a&privacyTrackingState=CAN_TRACK&sort=RECOMMENDED&userIntent=&expediaPropertyId=95437448

Airbnb Entire Home Rental:
https://www.airbnb.com/rooms/32546333?adults=1&children=0&enable_m3_private_room=true&infants=0&pets=0&search_mode=regular_search&check_in=2024-04-27&check_out=2024-05-02&source_impression_id=p3_1712590078_QuSd30XPVS2MhdX%2F&previous_page_section_name=1000&federated_search_id=cf8cdf55-8be1-4f19-a750-730ce78be8bd

From: Mr. Jeffrey I. Ornoff
212 Shivers Mill Ln.
Carrollton, VA 23314

Certified Mail: 7014 1200 0001 7697 3549

To: Ms. Rachel Bass
Zoning Coordinator
P. O. Box 80
17140 Monument Circle
Isle of Wight, VA 23397

Date: April 10, 2024

Dear Ms. Bass,

In response to your letter dated March 20, 2024, concerning your office's request from Jeremy and Lucy Kooiman to locate a short-term rental space at 214 Shivers Mill Ln. Carrollton, Virginia. I confirm that I am the owner of the adjacent property and that I absolutely, **OPPOSE** having a short-term rental business, or any other kind of commercial business, being operated in such close proximity to my Suburban Residential home. I **OPPOSE** it now, just as I **OPPOSED** it when I filed my complaint to the Isle of Wight County Board of Supervisors (almost 5 years ago) on May 28, 2019. At that time, both short-term rentals as well as "unpermitted" accessory use apartments were illegal in Isle of Wight County.

1. My neighborhood was an extremely quiet and peaceful place to live, prior to the Kooimans building their home, specifically designed to accommodate short-term rental guest in a secretly unknown and unpermitted accessory use apartment in the basement.

2. On April 16, 2020, the Board of Supervisors unanimously denied the Kooimans' after-the-fact Conditional Use Permit application for their illegal accessory use apartment, which was being used as a short-term rental business, The Board found it to be injurious to the use and enjoyment of other property in the immediate vicinity. The Board recognized that the short-term rental business was interfering with the quality of life of the Kooimans' neighbors, most especially me as the adjacent neighbor. **(A video of the Vote can be seen on the official IOWC website, under old business.)**

3. But here's what I don't understand. As a result of the vote, NOTHING, absolutely NOTHING was done by the County to impede the Kooimans from continuing to advertise and rent out their unpermitted 1,145 square foot apartment as a short-term rental. Let me quote directly from their advertisement. It described the apartment as follows: ***"Your rental consists of two bedrooms, a fully equipped kitchen, dining room, living room with fireplace, bathroom, screened-in porch, laundry area (washer & dryer), and a sitting area with a gas BBQ grill for your use."*** The advertisement also included pictures of each and every room in the basement apartment. And, further down in the advertisement it stated, ***"Your rental encompasses the entire first floor of this beautiful home, very private and your rental is exactly as shown in the pictures."*** At no time ever**,** and I repeat**, EVER** did the Kooimans advertise or rent out, two rooms to two people. In fact, just the opposite was true. Further down in the same advertisement, under <u>house rules,</u> it

said, ***"Max guests 2-4 adult sleeping arrangements, please contact us."*** How was this allowed to continue if the Board of Supervisors recognized that the use of this apartment for short-term rental was injurious to the use and enjoyment of my property? Where is the transparency that my Board of Supervisors so often boast about? There is no transparency here. I can only hope that now since the County has enacted its new short-term rental ordnance that it somehow gives them better legal standing and the ability to finish what they started when they denied the Kooimans' after-the fact Conditional Use Permit for the accessory use apartment. I pray this is the reason, and I hope that the Board of Supervisors will soon deny the Kooimans' application for a short-term rental Zoning Certificate.

4. However, after realizing the BOS vote did nothing to alleviate my situation, I filed a civil case against the Kooimans in the IOWC Circuit Court on April 2, 2021, for violating their covenant deed restrictions. In particular a restriction that states, no basement shall at any time be used as a residence, temporarily or permanently. The very same advertisement that was referenced in my letter to the BOS dated May 6, 2020, was introduced as evidence in the Circuit Court. The Judge determined from the evidence that the Kooimans had indeed established a separate apartment residence in their basement. On November 2, 2022, The Court Ordered an Injunction barring the Kooimans from allowing anyone to rent or lease the basement. The Order also barred the Kooimans from allowing any person to reside in the basement for any period of time. Furthermore, if the Kooimans should choose to rent the remainder of their house, the Order also barred the Kooimans from remaining on the property, due to another restriction in the covenant that restricts the lot to only single-family usage, not multi-family usage. My point is this! How is it that the Circuit Court Judge could so easily come to the decision that the basement still remained a separate apartment residence, even though the BOS denied the Kooimans' after-the-fact application for the accessory use apartment? As a tax paying citizen and constituent of Isle of Wight County, I think I deserve an answer from my elected Leaders.

5. The Kooimans' short-term rental would not have been possible had it not been for the County approving an **after-the-fact** exception to the Chesapeake Bay Preservation Act, (CBPA). This exception was for an unpermitted 33% increase over the maximum allowed impervious area. It appears obvious now, that the Kooimans had enlarged their driveway in preparation of secretly turning their basement into an accessory use apartment for the purpose of creating a short-term rental business. The Virginia State Authority that manages the (CBPA), was never informed by IOWC that the overage was being used for additional parking for a short-term rental business. I also realize that the County had no way of knowing this since both the driveway and the basement apartment were intentionally built by the Kooimans without obtaining prior permits.

6. Whereas, my lot and the Kooimans' lot are extremely narrow properties, the driveway now comes all the way to my property line and it also extends to the back of the yard. In other words, the aircraft carrier sized driveway is practically right underneath two of my bedroom windows. You cannot help but hearing all the noise from the multitude of vehicles arriving and departing from the Kooiman's property. I hear passenger doors and trunks opening and being slammed shut at all hours of the night. I can even hear it as far away as my living room. It's even louder if my windows are open. (which they seldom

are any more). The sounds of all the short-term renters coming and going, far exceed the amount of noise generated by a single family living in a home in a normal suburban residential neighborhood.

An actual example from October 2021: Two of the Kooimans' rental guests were on a business trip doing work for Dominion Energy. They stayed at the Kooimans' Hotel for **38 nights**. Both of the guests each had their own separate service truck, with very loud safety back-up warning alarms. Each morning when they departed for work at 5:00 AM, the startling sound from the back-up alarms would "alarmingly" wake both me and my dog from deep sleep. My dog immediately staring barking and growling as if my house was being intruded upon. Likewise, in the evenings, usually around 6:30 -7:00 PM, the quests would return from work, and the high-pitched sounds of the alarms would interrupt my enjoyment of my dinner while I tried to watch the evening news on television. The only noise I'm sure the Kooimans heard was the sound of money going into their banking account.

7. Because of the Kooiman short-term rental business, I no longer feel like I actually live in a suburban residential neighborhood anymore. That would imply that I know who my neighbors are. I have completely different people occupying the Kooimans' house on any given day. These people are not my neighbors. They are perfect strangers and because of it, I no longer feel safe in my own home. In fact, I hardly go out of my house anymore.

8. Even my legal rights to expect law enforcement to protect me and my property from illegal trespassers and criminals has been jeopardized as a result of the Kooimans' short-term rental business.

9. Fire and Safety Hazards are now a higher risk due to the Kooimans' short-term rental business. At times both Kooimans' guests as well as their family create a potential fire hazard by double-parking their cars on Anna Drive, where it intersects with Shivers Mill Ln. According to Board Supervisor, Mr. Joel Acree, who was a former Fire Captain for the Carrollton Volunteer Fire Department, said in the March 2024 meeting, this area in the circle of Anna Drive is used as a staging area by the Fire Dept. Also, I have already seen on a couple of occasions, some of Kooimans' short-term rental guests throwing lit cigarette butts into my yard behind my garage. Even Mr. Kooiman himself, while building his house, tried to burn down my garage by burning construction material in close proximity to the garage. The fire caused damage to the vinyl siding. Later that same day after the Fire Department extinguished the fire, Mr. Kooiman in his arrogance, started another fire and went home for the evening leaving the fire still burning and unattended.

10. Whether or not the short-term rental business is conducted in the basement apartment or in any other part of the Kooimans' house, it matters not! It would still be injurious to my use and enjoyment of my property, as well as interfere with my quality of life.

11. How many short-term rentals are Mr. and Ms. Kooiman planning on operating in Isle of Wight County? Under the new short-term rental ordnance. Specifically, Section 5-5005 – Supplementary use regulations for commercial use types, Part DD Short Term Rentals.

Sub-part 8, states: ***"A residential dwelling unit located within a building that contains three (3) or more dwelling units may not be operated as a short-term rental."*** Why are Mr. and Mrs. Kooiman using one of their Heritage Apartment dwelling units as a short-term rental? The new ordnance makes it perfectly clear that such use is **not permitted**. The Kooimans have advertisements on both Airbnb and Vrbo websites. Will this short-term rental be ordered to cease-and desist? **(See Airbnb Apartment and Vrbo Apartment enclosures or internet links).**

12. The Kooimans continually misrepresented the status of their accessory apartment which they used for their illegal short-term rental business. According to a letter received from a FOIA request, Mr. Kooiman told County officials that there were no bedrooms on the lower level of the home; that the pictures in their on-line ads were of rooms located in the main dwelling; that no accessory apartment existed; that he made no changes to the basement since he received his certificate of occupancy. Note:(The certificate was issued on November 15, 2017.); Mr. Kooiman told Staff officials, that because of the limited choices Airbnb gives users to describe their rental units on the website, he explained he chose "apartment", as the most accurate way to describe his bedroom rentals which could be accessed separately from the rest of the house. **(See BZA Staff Report)** and **(See Certificate of Occupancy)**

13. According to the same BZA report, Mr. Art Berkley, the County Building Inspector Director, who performed the occupancy inspection, stated that Mr. Kooiman told him that the basement was to be used as a home office. On October 11, 2019, after numerous delays caused by Mr. Kooiman, Inspector Berkley, finally managed to perform another inspection the Kooiman' basement and found that Mr. Kooiman had in fact converted to offices into two bedrooms. On November 25, 2019, the County finally figured out what the Kooimans' advertisements were telling them all along, **the basement did in fact constitute a separate dwelling and qualified as an accessory apartment.**

14. After all the previous misrepresentations made by Mr. and Mrs. Kooiman, which are documented in the BZA report, I am simply amazed at the ease with which the Kooimans can simply ignore their past responses to County Officials and move on to a completely new misrepresentation. The Kooimans tried to sell a new story to the BOS and well as sell it to the Circuit Court. They are now claiming they built their basement apartment with family and aging parents in mind. They also claimed that only when they not using it for family, that they would "occasionally" host short-term rental guests. The Kooiman's even went as far as saying that they did not even think about using the apartment as an Airbnb until after they moved into the house after receiving their Certificate of Occupancy. (This story is a long way from Kooimans' early claim that there simply was no apartment in the basement.) Their new story is further unraveled and comes apart when you look at the Kooiman's latest Airbnb advertisements. On both of their Airbnb advertisements, the one for the entire house and the one for the Heritage Apartment unit. They both show on the **last page** of the adds: "Hosted by Lucy and Jerry", and just under that the add shows that they joined Airbnb in January of 2017. **That's 10 months prior to receiving their certificate of occupancy.** It seems to me that the Kooimans put a lot of thought into opening an Airbnb with plenty of time to build the driveway and the

accessory apartment, both unpermitted and both suitable for their short-term rental business. All of it long before moving into their house. Also please notice on the last page of the advertisements where it the Kooimans have had 111 reviews. I assume that not all their customers have left reviews, but even if my assumption is wrong, 111 reviews pretty much shows that the Kooimans' family is not using the basement apartment as often as they would have you believe. This all leads me to a very important question for the Board of Supervisors. How do you ever expect to be able to enforce short-term rentals, at least here by the Kooimans, where they have continuously tried to mislead you. **(See Airbnb Entire Home Rental, Enclosure or Internet Links)**

15. There can be little doubt that I have always opposed the Kooimans commercial short-term rental business, whereas 5 years ago, I filed a complaint about it to the Board of Supervisors, when STRs were illegal. I also filed a civil case against the Kooimans 3 years ago in the Circuit Court for violating their deed restrictions for operating a short-term rental business out of their illegal basement apartment. So, as you can clearly see, I rightfully OPPOSE with good cause the Kooimans request for a Zoning Certificate for a commercial short-term rental business. Based on my personal experience of dealing with the Kooimans and their illegal short term rental business, I believe it makes me qualified to say that short-term rentals have no business in Suburban Residential neighborhoods. There's absolutely nothing neighborly about them. They only serve to pit neighbors against neighbors and they should be banned in Isle of Wight County. I beg you! Please **DO NOT** approve a Zoning Certification for the Kooimans. This is not the right location for a short-term rental business, and based on the Kooimans' past and present history, they certainly do not merit one.

Respectfully,



Jeffrey I. Ornoff
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Carrollton, VA 23314
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Email: jiornoff6@charter.net

Airbnb Apartment:
https://www.airbnb.com/rooms/775210193069129548?adults=1&children=0&enable_m3_private_room=true&infants=0&pets=0&check_in=2024-03-03&check_out=2024-03-08&source_impression_id=p3_1709076680_WyqDWhIVzWYVHGoz&previous_page_section_name=1000&federated_search_id=1e9300d4-cb81-4425-9546-9d1ef471866e

Vrbo Apartment:
https://www.vrbo.com/3468998?dateless=true&x_pwa=1&rfrr=HSR&pwa_ts=1709077058931&referrerUrl=aHR0cHM6Ly93d3cudnJiby5jb20vSG90ZWwtU2VhcmNo&useRewards=true&adults=2&regionId=86911&destination=Carrollton,+Virginia,+United+States+of+America&destType=MARKET&latLong=36.946815,-76.560508&searchId=0a2eb53c-7b7c-4c16-8700-f466db532f2a&privacyTrackingState=CAN_TRACK&sort=RECOMMENDED&userIntent=&expediaPropertyId=95437448

Airbnb Entire Home Rental:
https://www.airbnb.com/rooms/32546333?adults=1&children=0&enable_m3_private_room=true&infants=0&pets=0&search_mode=regular_search&check_in=2024-04-27&check_out=2024-05-02&source_impression_id=p3_1712590078_QuSd30XPVS2MhdX%2F&previous_page_section_name=1000&federated_search_id=cf8cdf55-8be1-4f19-a750-730ce78be8bd

PLANNING REPORT

APPLICATION:

Application (CUP-7-23) of Elk Development, LLC, applicant, and William Sawyer, property owner, for a conditional use permit for a major utility service, specifically a three megawatt utility-scale solar energy generation facility on approximately 28.84 acres located on Orbit Road on tax parcel number 39-01-026 in the Rural Agricultural Conservation zoning district. The application includes a request to withdraw 22.02 acres from the Courthouse Agricultural and Forestal District.

ELECTION DISTRICT:

District 4

LOCATION:

The proposed project is located at 18213 Orbit Road (Rte. 637). The access road to the site is located on Bowling Green Road. To the west of the site is the location of the historic home known as the Seed-Pierce House. To the north, there is residential development along Bowling Green Road. There is an approved solar facility known as Nuby Run to the southeast. There is additional scattered residential development to the south along Orbit Road. A property location map is attached to this staff report.

BACKGROUND:

The 28.44-acre project is situated on a parcel consisting of approximately 228.308 acres primarily consisting of agricultural fields. The property is in the RAC zoning district. Not all acreage comprising this parcel is proposed for the solar facility. Based on the project area, 27 acres of corn will be removed from production. Approximately 19 acres will be in the fenced area for the solar facility project area. The subject property has never been developed and has been used historically for agriculture. Of the acreage included in the project area, 11.0 of the acres are considered prime farmland, and approximately 17 acres of the project area are considered prime if drained.

On October 4, 2023, the Agricultural and Forestal District Advisory Committee held a public meeting to consider the withdrawal of approximately eighteen acres of land from the Courthouse Agricultural/Forestal District. The Committee

recommended approval of the request.

DESCRIPTION:

The applicant has proposed a three megawatt (MW) solar energy generation facility in the western portion of the property. An electrical line that bisects the project area along Orbit Road will serve as the interconnection point. The project will consist of solar panels along with their racking systems, metal posts, inverters, and fencing.

A perimeter fence will encompass the solar panels and ancillary equipment and is required to be harmonious with the rural agricultural and historical character of the County. The site will include a 50 feet landscape buffer along the western, southern, and northern portions of the site. Screening around the remainder of the site will be in accordance with the County's requirements. An internal access drive made from an all-weather aggregate base will provide access to the arrays.

Public Facility Impacts:

The applicant has proposed to access the site from an entrance on Bowling Green Road via Orbit Road (Rt. 637) for construction. The applicant will use Route 258 to access Orbit Road. Orbit Road is a one-lane secondary road. There is a very little space on the shoulder of Orbit Road, so passing construction traffic may be difficulty during certain times of day. Any roadway damage within the right-of-way that occurs after project construction begins will be documented and analyzed by both the applicant and VDOT. All costs for damage repairs will be paid by the applicant. The approved truck route will be monitored and enforced as a condition of approval, with permit revocation an option if violations occur.

In establishing the use, the enjoyment of neighboring properties may also be temporarily impacted by construction traffic and noise generation. To ensure adequate provision of emergency services, the Fire Rescue Department has reviewed this application and has no concerns at this time. The applicant is required to submit an emergency response plan with the submission of the preliminary site development plan. The plan shall include a training program to be provided, at the discretion of the County, to emergency responders concerning safety for on-site emergency response. The applicant shall install a Knox Box or other remote access technology at the facility access gates.

Environmental Assessment:

The project lies within the Chesapeake Bay Preservation Area (CBPA) Overlay District. There are impacts to two palustrine emergent (PEM) wetlands proposed by this project. Both wetland areas are currently located within an actively managed agricultural field. Per the water quality impact assessment (WQIA), proposed impacts were minimized to the extent practicable, and erosion and sediment controls will be utilized during the construction period to further mitigate for potential impacts. Additionally, restoration of the resources following construction will provide a means to reestablish a native vegetative community. If approved, wetlands are required to be confirmed by USACE during the site plan approval process.

No impacts to threatened or endangered species under the jurisdiction of the Virginia Department of Conservation and Recreation (DCR) are anticipated because of the proposed project. The eastern portion of the parent parcel is within the 500' boundary for colonial waterbirds. Correspondence with the Department of Wildlife Resources (DWR) stated that the project area will not impact this boundary. There are no impacts on identified ecological core areas.

Historic Resources:

A Phase 1 Cultural Resources Survey of the project area was conducted by Stantec. This report was sent by the applicant to the Virginia Department of Historic Resources (VDHR) for their review and concurrence with the survey findings and recommendations. A letter from VDHR was provided with the application and is included as an attachment to this staff report. The letter was provided as technical assistance to assess potential impacts on historic properties.

During the architectural survey, no shovel tests were positive for cultural material and no new isolated archaeological finds or new archaeological sites were identified during the investigation.

A total of six individual resources were located within the architectural study area, defined as the project area, and a 0.5-mile radius around the project area. There are five previously recorded resources and one newly recorded resource. Four of the five previously recorded resources have been determined as potentially eligible for listing in the National Register of Historic Places (NRHP). One newly documented resource was surveyed during the current project and is generally reflective of the mid-to-late twentieth-century development of Isle of Wight County and lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing in the NRHP.

All of the resources considered eligible or potentially eligible are historic homes. The Seeds-Pierce house is approximately 946' from the project area, historic resource #046-5546 is approximately 537' from the project area, historic resource 046-5545 is approximately 1058' from the project area, the Cedar Acres home is located approximately 3000' from the project area. A mitigation memo has been attached to this report from VDHR.

Economic Impact Assessment:

According to the applicant's economic impact study, the proposed facility would generate approximately $ 227,900 in cumulative county revenue over a 25-year operational life and approximately $ 328,300 in cumulative county revenue over a 35-year operational life based on both projected real estate and machinery and tax revenues. In contrast, the projected real estate tax revenue on the current agricultural land use over 25 years is $6,730, and a total of $9,420 over 35 years. The report also includes projected revenues resulting from construction activity on the site, but due to its temporary nature, it is not included in the staff report.

According to the 2022 Census of Agriculture (USDA-NASS), Isle of Wight County has 212 farms totaling 80,316 acres of land. The average farm size is 379 acres. The average annual market value of agricultural products sold per farm is $346,011, or $912.96 per acre. Using the same data to derive market values for crops cultivated on 28.44 acres to be converted for this project, the farmland generates an estimated $ 25,964.58 in market value.
Staff also sent the project's fiscal impact analysis to the Commissioner of Revenue for review. The rollback estimate should be updated based on the total lease area rather than just the solar facility acreage. The acreage subject to the Conditional Use Permit would be reassessed for real estate taxes at $15,000 per acre.

Viewshed Analysis:

An effects evaluation was conducted for NRHP-listed, eligible, and potentially eligible properties that may be affected by the proposed project. Four properties were assessed for effects and include the potentially eligible Cedar Acres (DHR #046-0004) and Seeds-Pierce House (DHR #046-0021) and two dwellings that are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546). Based on the results of the phase I study, the project would have adverse effects on all four of the previously listed resources. Mitigation in the form of a donation to the Isle of Wight County Museum has been accepted by VDHR.

COMPREHENSIVE LAND USE PLAN:

The recommended land use designation for these properties is Rural Agricultural Conservation (RAC) on the future recommended land use map in the County Comprehensive Plan.

Appropriate uses for the RAC land use designation include agriculture, horticulture, forest lands, and scattered low-density residential uses. Other uses such as resource extraction and utility-scale solar facilities are also permitted when appropriately sited with a Conditional Use Permit. Solar energy facilities are considered compatible with RAC land use when properly sited and with the application of appropriate development criteria.

Because the project proposes to use roads which are not suitable for heavy construction traffic, staff has concerns about whether the facility is appropriately sited.

ORDINANCE REVIEW:

The zoning district classification for the subject parcels is RAC. The RAC zoning district is intended to preserve and protect areas of the County that are predominantly in agricultural and forestal uses and to maintain the existing land base to support those activities.

The applicant proposes to establish a three MW utility-scale solar energy facility which is classified as a major utility service use type in the Zoning Ordinance. These facilities are permitted as conditional uses in the RAC zoning district and may be considered compatible with appropriate conditions to mitigate any potential negative impacts on the surrounding community.

At a minimum, the project will be required to meet the minimum setbacks of 75 feet from adjacent property lines and 125 feet from residential use parcels as required by the Zoning Ordinance. There is also a 250-foot setback requirement for all inverters and electrical equipment. The Ordinance also requires a minimum setback of 250 feet from any historical or cultural resource.

Following approval of the CUP request, the applicant will be required to submit a site plan application for review and approval that demonstrates compliance with all current plan criteria contained in Section 5-5003.M.4, supplemental use regulations for utility-scale solar energy facilities, of the Zoning Ordinance.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use permit application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designated as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and,
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may be applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak period of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact of the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon

the use of surrounding properties;

5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theatres, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impacts, the effect on sensitive natural features, and opportunities for recreation and open space; and,
10. The preservation of cultural and historic resources or landmarks.

It is the opinion of staff, that the solar facility would result in a saturation of similar uses in the same general neighborhood. The Solidago solar facility is constructed on Redhouse Road approximately 0.6 miles from the project area. There is another approved but not constructed solar facility located to the southeast known as Nuby Run. The Nuby run facility is located approximately 0.5 miles from the project area. If approved, the applicant will be required to submit a site plan for review and approval in accordance with the Zoning Ordinance requirements and conditions of approval.

AGENCY REVIEW:

The application was forwarded to the following departments for their review:

Economic Development: The department stated it had no concerns.
Environmental Planner: All concerns addressed with the conditional use permit application. Further information will be required at site plan review.
Commissioner of Revenue: Rollback estimates should be based on the entire acreage of the entire lease area not just the acreage of the solar facility. The acreage subject to the Conditional Use Permit would be reassessed at $15,000 per acre.
Emergency Services: Staff will work with applicant during site plan review on required Emergency Response Plan to include annual training.
Utility Services: Staff will review site plan for compliance with State Stormwater regulations.
Isle of Wight County Museum: Please see attached memo.

Virginia Department of Transportation (VDOT): No concerns at this time. Please note that, should the conditional use permit be approved, the project will be subject to site plan review and approval from all necessary agencies.

STAFF CONCLUSIONS:

Strengths:

1. The proposed use would generate additional nonresidential tax revenue for future public service and facility needs for the County.

Weaknesses:

1. The proposed use would remove agricultural land from production.
2. Temporary impacts to residential development in the area from construction traffic and noise is expected during the construction phase.
3. There are adverse impacts to several historical resources. The mitigation proposed does not directly affect the neighboring properties.
4. The proposed construction traffic route utilizes narrow rural roadways with limited pull-off and passing areas.
5. The facility would result in a saturation of uses in the same general neighborhood.

STAFF RECOMMENDATION:

Based on the weaknesses listed above, staff recommends denial of the CUP request. However, should the CUP be approved, staff recommends the following conditions: 1) Topsoil shall be stockpiled on the site and shall be stored out of view from adjacent properties and public roads. 2) The applicant shall submit a seed mix for site groundcover that includes native pollinators blooming in spring/summer as recommended by DCR. 3) The applicant will work directly with the Isle of Wight County Chamber of Commerce, Paul D. Camp Community College, and the Economic Development Department to ensure inclusion of local contractors in the bidding process. 4) A laminated Emergency Response Poster will be mounted near the front gate. The poster will include a general site plan, evacuation routes and muster points, emergency response chain of command, directions to the closest hospital, coordinates to the closest life flight landing area, and other pertinent information associated with the facility during an emergency response. 5) The facility perimeter fencing will be equipped with push bar pedestrian gates to permit emergency exits from the facility. 6) Adherence to the proposed transportation plan shall be required for all facility traffic. Truck traffic shall be limited to only to the preferred route as described in in the transportation

plan. No other local routes in Isle of Wight County may be used. The applicant shall coordinate deliveries outside of school bus pickup and drop-off times. 7) Excluding the bufferyards, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing. 8) Hours of operation for construction and post-construction operation shall be limited to Monday through Friday, 7:00 a.m. to 6:00 p.m. Saturdays from 7:00 a.m. to 5:00 p.m. No construction is to occur on Sundays by any party involved with the project. 9) As part of the site plan review, the applicant shall provide documentation that the selected panels and all power-generating equipment on-site are "Tier 1" modules, as established by the most recent "PV Module Tier 1 List" issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power-generating equipment initially installed and replaced on the site must qualify, for disposal purposes only, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP). 10) The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density, and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results. 11) Any recommendations provided by VDHR during site plan review will be adhered to, in addition to requirements in the zoning ordinance.

ATTACHMENTS:

Description	Type	Upload Date
Application	Backup Material	7/9/2024
Concept Plan	Backup Material	7/9/2024

Narrative	Backup Material	7/9/2024
Transportation Route	Backup Material	7/9/2024
Economic Impact Analysis	Backup Material	7/9/2024
Visual Impact Analysis	Backup Material	7/9/2024
Wetland Study	Backup Material	7/9/2024
Threatened and Endangered Species	Backup Material	7/9/2024
Phase 1 Study	Backup Material	7/9/2024
Isle of Wight County Musuem Response	Backup Material	7/12/2024
Mitigation Memo DHR	Backup Material	5/20/2024
Solar Facility Table	Backup Material	6/18/2024
Location Map	Backup Material	7/11/2024
Location Closeup Map	Backup Material	7/11/2024
Zoning Map	Backup Material	7/11/2024
Land Use Map	Backup Material	7/11/2024

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[x] Conditional Use Permit (Are applicant proposed conditions attached?): x Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): _____ Yes _____ No

Proposed Use or Activity: Solar Energy Generation Facility

B. PROJECT DESCRIPTION:

Project Name: VAL035

Property Address (if any): 18213 ORBIT RD, WINDSOR, VA 23487

Election District: 4

Comprehensive Plan Designation: RURAL AGRICULTURAL CONSERVATION

The use permit will apply to 28.44 acres out of 228.308 total acres

Tax Parcel Identification # 39-01-026 Number of acres to be effected: 228.308

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water _____ Private Well _____

Public Sewer _____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): ELK DEVELOPMENT, LLC (a wholly owned subsidiary of Pivot Energy)

Address: 6865 DEERPATH ROAD, SUITE 330

City, State, Zip Code: ELKRIDGE, MD, 21075

Phone No.: 570-847-7555 Email: rhickox@pivotenergy.net (project manager) Fax No.:

Property Owner(s) Name(s): SAWYER W C

Address: PO BOX 245

City, State, Zip Code: CARROLL TON, VA 23314

Phone No.: 757-870-1982 Email: Fax No.:

5/16/2024

Applicant Signature **Date**

3-21-23

Owner Signature ***if different*** **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant ELK DEVELOPMENT, LLC

Address 6865 DEERPATH ROAD, SUITE 330
Street

ELKRIDGE MD 21075
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
18213 ORBIT RD	AGRICULTURE FIELDS & WOODLAND
WINDSOR VA 23487	

OTHER OWNERS OF AFFECTED REAL ESTATE

(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
SAWYER W C	PO BOX 245
	CARROLLTON, VA 23314

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[X]
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: _____ Applicant: _____ Date: _____
Printed or Typed Name Signature

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me_____,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this_____day of_____, 20_____.

_____
Notary Public

My Commission Expires_____

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided**. The required number of copies may be reduced with permission of the Zoning Administrator.**

- ☐ Application: Ten (10) copies of the original, executed application, one (1) digital copy of all application documents, and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 3 of the application.

- ☐ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

- ☐ Ten (10) copies of a statement of the reasons for seeking such permit and if applicable, a statement of conditions.

- ☐ Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification

- ☐ Ten (10) copies of a concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:
  - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
  - Title of drawing
  - Date of drawing
  - Existing wood line
  - North arrow
  - Scale bar
  - Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
  - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
  - Street names including route number and width(s) of the right-of-way(s)
  - Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy and a digital copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board of Supervisors more effectively**.

☒ Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

☒ A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

☒ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

Jon Fitzpatrick

Printed or Typed Name

Signature

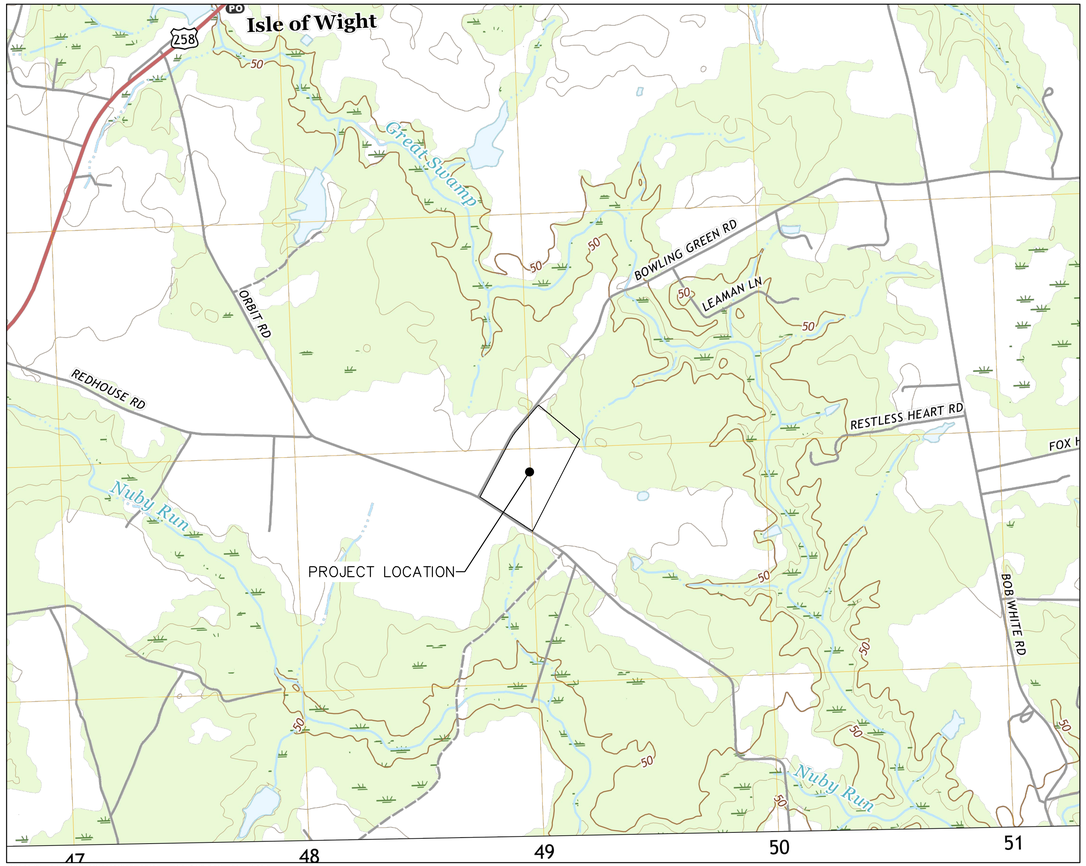
16/05/2024

Date

CONDITIONAL USE CONCEPT PLAN

VAL035
Solar Energy System

18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA



SOURCE: USGS QUADRANGLE MAP – SMITHFIELD, VA 2019

VICINITY MAP

1000 0 1000 2000
SCALE: 1" = 1000'

GENERAL NOTES

1. SOLAR PANEL AND ELECTRICAL LAYOUT AND DESIGN PROVIDED BY PIVOT ENERGY, 6865 DEERPATH ROAD, STE 330, ELKRIDGE, MD 21075. 410-779-9377
2. SITE PLANS AND DESIGN PERFORMED BY DAWOOD ENGINEERING, INC., 11 GRANDVIEW CIRCLE, SUITE 116, CANONSBURG, PA 15317, 855-432-9663.
3. THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE COUNTY ORDINANCES IN EFFECT AT TIME OF SUBMISSION OF THE PLAN.
4. SITE DEVELOPMENT PLAN APPROVAL DOES NOT RELIEVE THE OWNER FROM ALL APPLICABLE SIGN REGULATIONS. ALL PROPOSED ON-SITE SIGNAGE SHALL CONFORM TO THE COUNTY ORDINANCES.
5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING.
6. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF ANY EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.
7. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE AVAILABLE INFORMATION. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. ADDITIONAL UTILITIES MAY BE ENCOUNTERED.
8. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES AT ALL TIMES.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AND COMPLETELY AT HIS EXPENSE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF ALL PERMITS RELATED TO THE CONSTRUCTION SHOWN ON THESE PLANS ON THE JOB SITE AT ALL TIMES.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC SAFETY AS MANDATED BY DOT, OSHA, DEQ AND OTHER AGENCIES.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL.
13. RESTRICTION ON CONSTRUCTION ACTIVITIES SHALL APPLY FROM FEBRUARY 15 THROUGH JULY 31 WHERE LOCATED WITHIN 0.5-MILE OF A COLONIAL WATERBIRD COLONY. THE OWNER SHALL BE NOTIFIED IF ANY COLONIAL WATERBIRD COLONIES ARE IDENTIFIED ON SITE. THE OWNER SHALL BE RESPONSIBLE FOR COORDINATION WITH THE VIRGINIA DEPARTMENT OF WILDLIFE RESOURCES.
14. IN ACCORDANCE WITH ISLE OF WIGHT ZONING ORDINANCE 5-5003, SECTION M.4.h., CONTRACTOR SHALL INSPECT AND VIDEO DOCUMENT ALL SECONDARY ROADS TO BE UTILIZED BY CONSTRUCTION VEHICLES PRIOR TO STARTING CONSTRUCTION AND AGAIN AFTER CONSTRUCTION IS COMPLETE. ALL ROADS DAMAGED BY SOLAR FARM CONSTRUCTION TO BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.

SURVEY NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY DAWOOD ENGINEERING, INC. IN OCTOBER AND NOVEMBER 2022.
2. THE LEGAL RIGHT-OF-WAY ON VA-637 VARIES, BASED ON SURVEY PLAT CABINET 2 SLIDE 189 PAGE 9 OF ISLE OF WIGHT COUNTY RECORDS.
3. THE LEGAL RIGHT-OF-WAY ON SR 644 IS 40 FEET, BASED ON DB 058372 PG 301.
4. VERTICAL CONTROL IS BASED ON NAVD 88 GEOID 18.
5. HORIZONTAL CONTROL IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM-SOUTH ZONE, NAD83 (2011) (EPOCH 2010.00).
6. ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE BASED UPON SURFACE FEATURES AND RECORD DRAWINGS PROVIDED. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATION SHOWN HEREON. ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED.
7. THE SITE IS NOT SITUATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FEMA FLOOD INSURANCE RATE MAP PANEL NUMBER 51093C0150E, EFFECTIVE DATE 12/2/2015.
8. A FIELD DELINEATION OF WETLAND HABITATS WAS CONDUCTED BY DAWOOD ENGINEERING, INC. IN OCTOBER 2022. THE WETLANDS AND WATERCOURSES IDENTIFIED HAVE BEEN DELINEATED ON THE SURVEY.

LAND OWNERS

PARCEL 39-01-026
W. C. SAWYER

SOURCE OF TITLE

INSTRUMENT #80000378
RECORDED IN ISLE OF WGHT COUNTY
ON JANUARY 23, 2008
GRANTEE: W. C. SAWYER
GRANTOR: JLB, LLC

LEGEND
(TYPICAL ALL PLAN SHEETS)

- R/W Right of Way
- ℄ Center Line
- R Record
- F Found
- U Used
- B Book
- P Page
- I.P. Fnd. Iron Pin Found
- Pipe. Fnd. Pipe Found
- Stone Fnd. Stone Monument Found
- I.P. Mon. Fnd. Iron Pin Monument Found
- Mon. Fnd. Concrete Monument Found
- Axle Found
- Fence Post Found
- Angle Iron Found
- Mag Nail Found
- Railroad Spike Found
- Benchmark
- Bollard
- Road Sign
- Post Or Pole
- Handicapped Parking
- Electric Vault
- Electric Meter
- Electric Pole
- Guy Wire
- Light Post/Pole
- Telephone Manhole
- Cable Box
- Water Meter
- Water Manhole
- Water Spigot
- Water Valve
- Sanitary Sewer Cleanout
- Sanitary Sewer Manhole
- Gas Meter
- Gas Valve
- Gas Marker
- Gas Test Station
- Storm Sewer Inlet
- Storm Sewer Manhole
- Parcel Boundary Line
- Legal Right-Of-Way Line
- Center Line
- Edge Of Bituminous Paving
- Edge Of Gravel
- Curb
- Fence Line
- Guide Rail
- Building Line
- Tree Line
- E Overhead Electric Line
- UE Underground Electric Line
- T Overhead Telephone Line
- UT Underground Telephone Line
- CTV Overhead Cable TV
- UCTV Underground Cable TV
- W Water Line
- SS Sanitary Sewer Line
- G Gas Line
- Storm Sewer Line
- Water Edge / Stream
- Wetlands
- XXX Soil Type and Limits
- Minor Contour
- Major Contour

PLAN SHEET INDEX:

C1 ..... COVER SHEET
C2 ..... PROPERTY PLAT
C3 ..... NEARBY RESOURCES MAP
C4 ..... ENVIRONMENTAL SITE ASSESSMENT PLAN
C5 ..... EXISTING CONDITIONS SITE PLAN
C6 ..... SITE DEVELOPMENT PLAN

VISIT va811.com Dig With CARE

CALL 811 BEFORE YOU DIG
ALLOW REQUIRED TIME FOR MARKING
RESPECT THE MARKS
EXCAVATE CAREFULLY

THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT, AS AMENDED, REQUIRES THREE BUSINESS DAYS NOTICE TO UTILITIES BEFORE YOU DIG, DRILL OR BLAST. DIAL 8-1-1 OR 1-800-552-7001 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 15 BUSINESS DAYS PRIOR TO THE EXCAVATION OF A WORK AREA.

VIRGINIA ONE CALL SYSTEM TICKET NUMBER
DESIGN TICKET No.: A306001945-00A DATE: 3/01/23

LIST OF PUBLIC UTILITIES

COMPANY: DOMINION EAST DISTRIBUTIO (DOM409)
CONTACT: UTILIQUEST
804-286-1721
IN EVENT OF DAMAGE CALL: 866-366-4357

COMPANY: VERIZON (VZN757)
CONTACT: UTILIQUEST
757-315-8119
IN EVENT OF DAMAGE CALL: 888-483-1233

LISTING OF REQUIRED PERMITS

- ISLE OF WGHT COUNTY APPROVALS
  CONDITIONAL USE
  SITE DEVELOPMENT PLAN
- VDOT LAND USE PERMIT (LUP-CEI) FOR DRIVEWAY CONSTRUCTION WITHIN BOWLING GREEN ROAD RIGHT-OF-WAY
- VDOT LAND USE PERMIT (LUP-UT) FOR UTILITY INSTALLATION WITHIN ORBIT ROAD RIGHT-OF-WAY (BY DOMINION)
- VDEQ VPDES (VAR10) FOR LAND DISTURBANCE EXCEEDING 1-ACRE
- USACE/VMRC/VDEQ JOINT PERMIT FOR WETLAND DISTURBANCE

REVISIONS

NO.	DATE	DESCRIPTION
1	9/21/23	PER OWNER AND COUNTY COMMENTS
2	11/21/23	PER COUNTY COMMENTS

DOCUMENT PREPARED BY:
DAWOOD
11 Grandview Circle, Suite 116, Canonsburg, PA 15317
t. 724.746.0730 www.dawood.cc

SCALE:

DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
COVER SHEET

DATE	MARCH 29, 2023
JOB NO.	2200547.03
FILE NAME	LD-SK-TI
DRAWN BY	CWW
CHECKED BY	JTP
SHEET NO	C1

O:\2022\JOBS\2200547-03\LD\CAD\DRAWINGS\2200547O3-LD-SK-TI
November/21/2023 9:15 AM

SITE AREA TABULATION		
PARCEL SIZE	6,624,959 SF	152.09 AC
PROJECT AREA LIMITS OF CONSTRUCTION	1,256,284 SF	28.84 AC
PROPOSED LAND DISTURBANCE	TBD	TBD
PROPOSED TREE CLEARING	NONE	
PROJECT AREA ACREAGE:	EXISTING	PROPOSED
SOLAR FARM (FENCED AREA)	0	19.64 AC (68%)
OPEN SPACE	28.44 AC (99%)	8.77 AC (31%)
BUILDING AREA	0.16 AC	0.16 AC
IMPERVIOUS COVERAGE	0.27 AC	0.36 AC
MOUNTED SOLAR PANELS	n/a	5.07 AC
FENCING	0.14 AC	0.32 AC
LANDSCAPING	n/a	3.08 AC
POINT OF INTERCONNECTION	n/a	0.08 AC
CROPS (CORN)	26.64 AC	0
PASTURE	0	0
WOODLAND	0	0
PARCEL AREA ACREAGE:	EXISTING	PROPOSED
CROPS (CORN)	118 AC	91 AC
PASTURE	0	0
WOODLAND	25 AC	25 AC

NET DEVELOPABLE ACREAGE *		
GROSS SOLAR LEASE AREA	28.71 Acres	
TIDAL WETLANDS	0	AT 100%
100-YEAR FLOODPLAINS	0	AT 100%
RESOURCE PROTECTION AREAS (INCLUDING 100-FT BUFFER)	0.74	AT 100%
NON-TIDAL WETLANDS	0.86	AT 50%
SLOPES >15% BUT <30%	0.18	AT 50%
SLOPES >30%	0.16	AT 100%
POWER TRANSMISSION LINE EASEMENTS	0	AT 100%
GAS TRANSMISSION LINE EASEMENTS	0	AT 100%
STREET RIGHT-OF-WAY, EXISTING OR PLANNED, PUBLIC OR PRIVATE	28.71	AT 20%
SOLAR LEASE AREA NET DEVELOPABLE AREA *	21.63 Acres	
* NDA CALCULATIONS FOR SOLAR LEASE AREA ONLY. NDA OUTSIDE THE SOLAR LEASE AREA HAS NOT BEEN DETERMINED		

LANDSCAPING AND SCREENING REQUIREMENTS	
TOTAL SITE REQUIREMENTS	
8-1003.B.	MINIMUM 25% EVERGREEN SPECIES MINIMUM 50% NATIVE SPECIES MINIMUM 15% LANDSCAPE SURFACE RATIO
LANDSCAPING ZONE REQUIREMENTS	
8-1005.F.1.	60' WIDE FRONTAGE ZONE 1.75 POINTS / LF MINIMUM 60% NON-ORNAMENTAL MAXIMUM 50% EVERGREEN
8-1005.F.2.	10' WIDE BUFFER ZONE 0.9 POINTS / LF (ADJ. TO RES. STRUCTURE) 0.45 POINTS / LF (NOT ADJ.) ONE PEDESTRIAN BREAK PER 50 LF (MIN. 6' WIDE)
8-1005.F.5.	10' WIDE SCREENING ZONE 0.8 POINTS / LF NOT INCLUDING FENCES/BERMS/WALLS
SOLAR ENERGY REQUIREMENTS	
5-5003.M.4.e.i.	PUBLIC ROAD 50' WIDE BUFFERYARD THREE STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER
5-5003.M.4.e.ii.	ABUTTING RESIDENTIAL PARCEL 50' WIDE BUFFERYARD THREE STAGGERED ROWS OF LARGE AND SMALL CANOPY TREES AND MEDIUM SHRUBS AT MAXIMUM 8-FT ON CENTER

ZONING REQUIREMENTS / SITE DATA		
TAX PARCEL	39-01-026	
ZONING DISTRICT	RURAL AGRICULTURAL CONSERVATION (RAC) DISTRICT	
EXISTING LAND USE	AGRICULTURE	
PROPOSED LAND USE	AGRICULTURE	SOLAR ENERGY SYSTEM (UTILITY SERVICE/MAJOR)
WATER/WASTEWATER	EXISTING TO REMAIN	N/A
SITE ACCESS	ORBIT ROAD (VA-637)	BOWLING GREEN ROAD (VA-644)
REQUIRED LOT SIZE	40,000-SF	
ACTUAL LOT SIZE PER USE	123.38 AC	28.71 AC
TOTAL LOT SIZE	152.09 AC	
REQUIRED LOT WIDTH	150-FT	
ACTUAL LOT WIDTH	1520 FT	
REQUIRED LOT FRONTAGE	120-FT	
ACTUAL LOT FRONTAGE	2130 FT (SR 637) + 1529 FT (SR 644)	
MINIMUM FRONT SETBACK	60-FT	SOLAR ENERGY SYSTEMS: 75-FT ALL PROPERTY LINES (125-FT FROM RESIDENTIAL PARCELS)
MINIMUM SIDE SETBACK	15-FT (ONE SIDE) 35-FT (BOTH SIDES) (15-FT ACCESSORY STRUCTURES)	
MINIMUM REAR SETBACK	35-FT (5-FT ACCESSORY STRUCTURES)	
MAXIMUM BUILDING HEIGHT	LESSOR OF 35-FT OR 3-STORIES	
ACTUAL BUILDING HEIGHT	< 35 FT	N/A
MAXIMUM HEIGHT FOR GROUND-MOUNTED SOLAR PANELS	15-FT AT MAXIMUM TILT (EXCEPT FOR VEGETATION MANAGEMENT OR FOR INSPECTION, MAINTENANCE, OR REPAIR)	
MAXIMUM SOUND FROM SOLAR ENERGY SYSTEM	60 DbA (A-WEIGHTED DECIBELS) AS MEASURED AT ANY PARCEL LINE	
MINIMUM STORMWATER MANAGEMENT FACILITY SETBACK	20-FT FROM PUBLIC RIGHT-OF-WAY, PROPERTY LINES, EASEMENTS, OR ANY BUILDING	

REVISIONS		
NO.	DATE	DESCRIPTION
1	9/21/23	PER OWNER AND COUNTY COMMENTS
2	11/21/23	PER COUNTY COMMENTS

DOCUMENT PREPARED BY:
DAWOOD
11 Grandview Circle, Suite 116, Canonsburg, PA 15317
t: 724.746.9700 www.dawood.cc

SCALE: 1" = 200'

DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

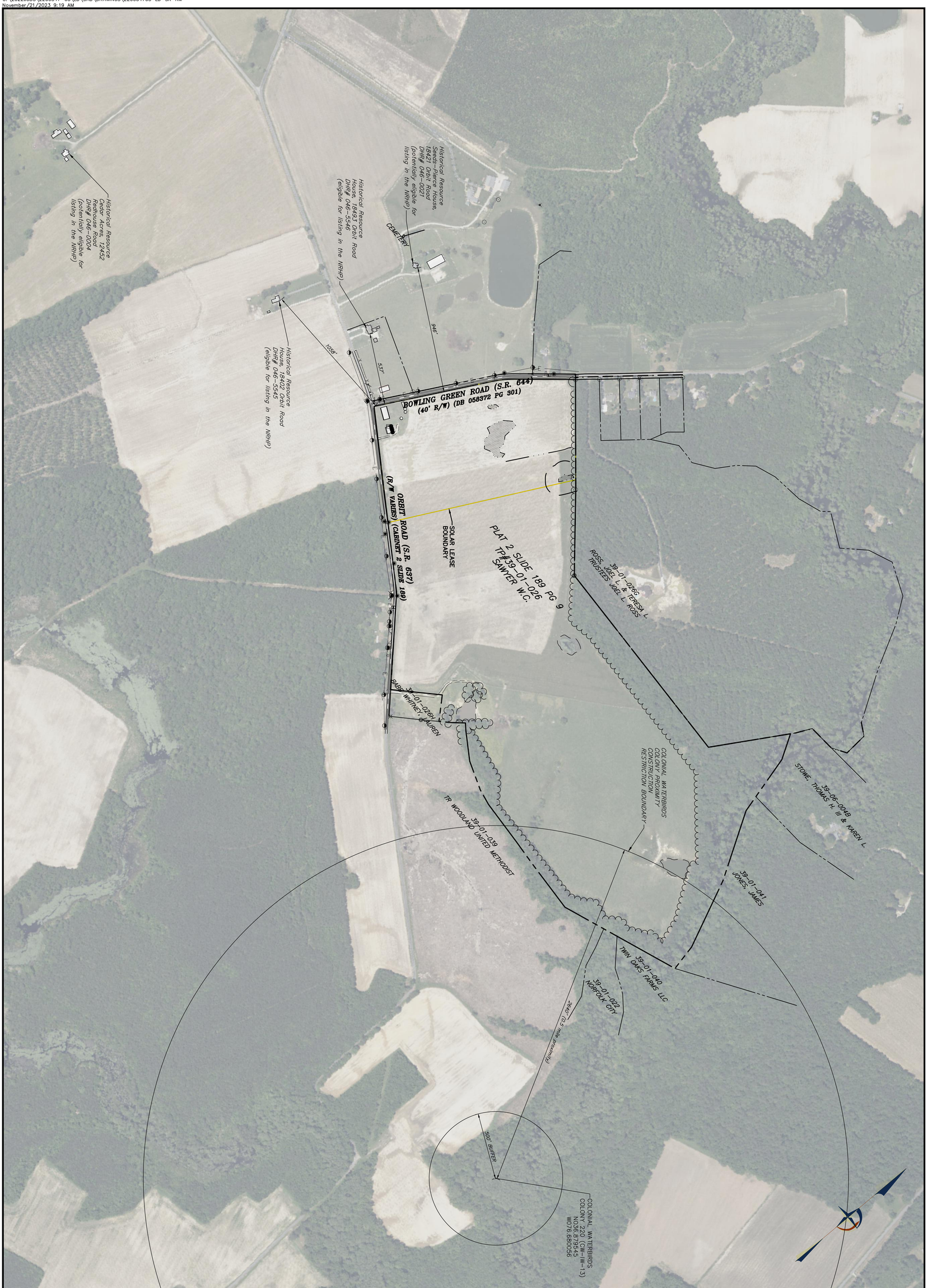
DRAWING TITLE
PROPERTY PLAT

DATE	MARCH 29, 2023
JOB NO.	2200547.03
FILE NAME	LD-SK-0A
DRAWN BY	CWW
CHECKED BY	JTP

SHEET NO
C2

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November 21, 2023 9:17 AM

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November/21/2023 9:19 AM



DRAWING TITLE	NEARBY RESOURCES MAP
DATE	MARCH 29, 2023
JOB NO.	2200547.03
FILE NAME	LD-SK-RM
DRAWN BY	CWW
CHECKED BY	JTP
SHEET NO	C3

CONDITIONAL USE CONCEPT PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DOCUMENT PREPARED FOR:

ELK DEVELOPMENT, LLC

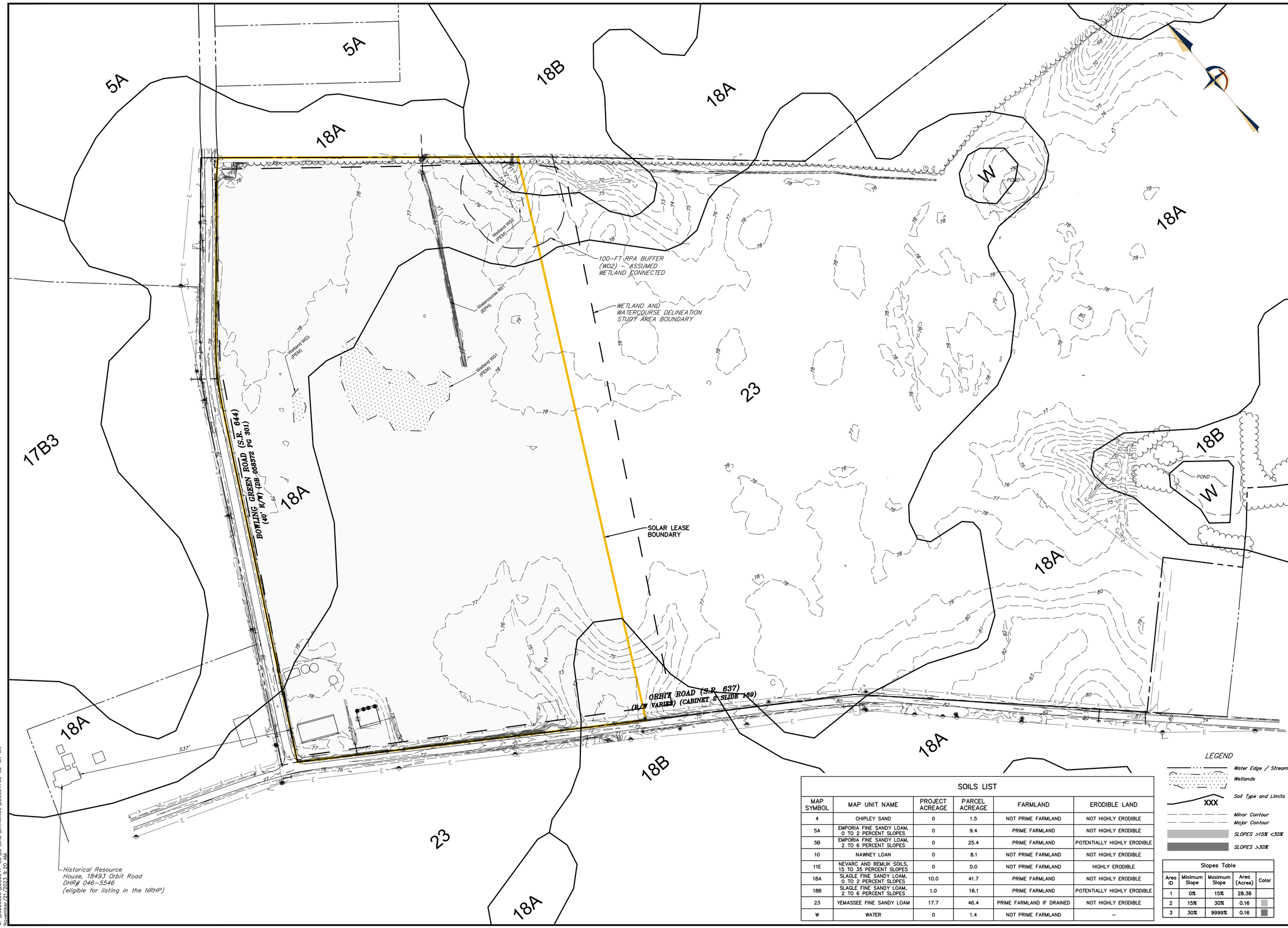
6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

DOCUMENT PREPARED BY:

DAWOOD
11 Grandview Circle, Suite 116, Canonsburg, PA 15317
t: 724.746.0730 www.dawood.cc

SCALE:
300 0 300 600
SCALE: 1" = 300'

REVISIONS		
NO.	DATE	DESCRIPTION
1	9/21/23	PER OWNER AND COUNTY COMMENTS
2	11/21/23	PER COUNTY COMMENTS



SOILS LIST					
MAP SYMBOL	MAP UNIT NAME	PROJECT ACREAGE	PARCEL ACREAGE	FARMLAND	ERODIBLE LAND
4	CHIPLEY SAND	0	1.5	NOT PRIME FARMLAND	NOT HIGHLY ERODIBLE
5A	EMPORIA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	0	9.4	PRIME FARMLAND	NOT HIGHLY ERODIBLE
5B	EMPORIA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	0	25.4	PRIME FARMLAND	POTENTIALLY HIGHLY ERODIBLE
10	NAWNEY LOAN	0	8.1	NOT PRIME FARMLAND	NOT HIGHLY ERODIBLE
11E	NEVARC AND REMLIK SOILS, 15 TO 35 PERCENT SLOPES	0	0.0	NOT PRIME FARMLAND	HIGHLY ERODIBLE
18A	SLAGLE FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	10.0	41.7	PRIME FARMLAND	NOT HIGHLY ERODIBLE
18B	SLAGLE FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	1.0	18.1	PRIME FARMLAND	POTENTIALLY HIGHLY ERODIBLE
23	YEMASSEE FINE SANDY LOAM	17.7	46.4	PRIME FARMLAND IF DRAINED	NOT HIGHLY ERODIBLE
W	WATER	0	1.4	NOT PRIME FARMLAND	–

LEGEND

- Water Edge / Stream
- Wetlands
- Soil Type and Limits (XXX)
- Minor Contour
- Major Contour
- SLOPES >15% <30%
- SLOPES >30%

Slopes Table				
Area ID	Minimum Slope	Maximum Slope	Area (Acres)	Color
1	0%	15%	28.38	
2	15%	30%	0.16	
3	30%	9999%	0.16	

REVISIONS

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2	11/21/23	PER COUNTY COMMENTS

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SCALE: 1" = 100'
0 100 200

DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
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CONDITIONAL USE CONCEPT PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
ENVIRONMENTAL SITE ASSESSMENT PLAN

DATE	MARCH 29, 2023
JOB NO.	2200547.03
FILE NAME	LD-SK-EN
DRAWN BY	CWW
CHECKED BY	JTP
SHEET NO	C4

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November 21, 2023 9:20 AM

RAC
RURAL AGRICULTURAL CONSERVATION
ZONING DISTRICT

RR
RURAL RESIDENTIAL
ZONING DISTRICT

APPROXIMATE
ZONING DISTRICT
BOUNDARY, TYP.

39-01-026G
ROSS, JOEL L. & TERESA L.
TRUSTEES JOEL L. ROSS

5A
18A
18B
17B3
23

BOWLING GREEN ROAD (S.R. 644)
(40' R/W) (DB 058972 PG 301)

4.5' WOOD FENCE
ASPHALT
SHARE THE ROAD
STOP
537'

INVERT 12" RCP – 77.28
INVERT 12" CMP – 77.21
INVERT 12" CMP – 74.83
INVERT 12" RCP – 77.52
INVERT 12" RCP – 77.44
INVERT 12" RCP – 77.16
INVERT 12" RCP – 77.28
POLE HL57
INVERT 12" RCP – 76.40
INVERT 12" RCP – 76.17
INVERT 15" CPP – 75.26
INVERT 15" CPP – 75.34
INVERT 15" CPP – 75.59
INVERT 15" RCP – 76.11
POLE HL22
INVERT 15" RCP – 76.10
INVERT 10" RCP – 77.04
INVERT 10" RCP – 76.91
INVERT 15" RCP – 76.59
INVERT 15" CPP – 76.44
POLE GK49
INVERT 15" CPP – 76.73
INVERT 15" CPP – 76.36
POLE GK60
INVERT 15" CPP – 76.25
INVERT 8" RCP – 76.32
INVERT 8" RCP – 76.37
INVERT 12" RCP – 76.18
INVERT 15" RCP – 76.
INVERT 15" RCP – 75.96
INVERT 12" RCP – 75.52
POLE GJ37
INVERT 12" RCP – 75.57
INVERT 12" RCP – 74.42
INVERT 15" RCP – 75.53
INVERT 15" RCP – 75.90
POLE GJ99
POLE 345 F246 GJ33
POLE FJ17
INVERT 15" SLPP – 74.41
INVERT 15" SLPP – 74.64
INVERT 12" SLPP – 71.19
INVERT 15" SLPP – 70.95
INVERT 15" RCP – 69.99
INVERT 15" RCP – 69.47
POLE HJ88
POLE HJ64
POLE IH38
INVERT 15" RCP – 78.54
INVERT 15" RCP – 79.02
POLE JH33
POLE JH04
POLE M1918/JGDOM86
POLE JH31
INVERT 15" CPP – 77.94
INVERT 12" RCP – 79.86
POLE JG85
POLE KC23
INVERT 15" CPP – 78.18
INVERT 12" RCP – 79.29
INVERT 12" RCP – 78.92

Wetland W02 (PEM)
Wetland W03 (PEM)
Wetland W01 (PEM)
Watercourse R01 (EPH)
DITCH H
FARM FIELD
POND W

100-FT RPA BUFFER
(W02) – ASSUMED
WETLAND CONNECTED

WETLAND AND
WATERCOURSE DELINEATION
STUDY AREA BOUNDARY

PLAT 2 SLIDE 189 PG 9
TP#39-01-026
SAWYER W.C.

SOLAR LEASE
BOUNDARY

ORBIT ROAD (S.R. 637)
(64' VARIES) (CABINET 2 SLIDE 189)

39-01-026H
BABB WHITNEY, LAUREN

BARN
ORBIT LODGE

Historical Resource
House, 18493 Orbit Road
DHR# 046-5546
(eligible for listing in the NRHP)

REVISIONS

NO.	DATE	DESCRIPTION
1	9/21/23	PER OWNER AND COUNTY COMMENTS
2	11/21/23	PER COUNTY COMMENTS

DOCUMENT PREPARED BY:
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SCALE: 1" = 100'
0 100 200

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410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
EXISTING
CONDITIONS
SITE PLAN

DATE	MARCH 29, 2023
JOB NO.	2200547.03
FILE NAME	LD-SK-EC
DRAWN BY	CWW
CHECKED BY	JTP
SHEET NO	C5

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November 21, 2023 9:22 AM

RAC
RURAL AGRICULTURAL CONSERVATION ZONING DISTRICT

RR
RURAL RESIDENTIAL ZONING DISTRICT

APPROXIMATE ZONING DISTRICT BOUNDARY, TYP.

39-01-026G
ROSS, JOEL L. & TERESA L. TRUSTEES JOEL L. ROSS

3 STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER

10' LANDSCAPING BUFFER ZONE (8-1005.F.2.)

60' LANDSCAPING FRONTAGE ZONE (8-1005.F.1.)

50' SOLAR ENERGY BUFFER YARD (5-5003.M.4.e.i.)

SOLAR ENERGY SYSTEM SETBACK LINE

100-FT RPA BUFFER (W02) - ASSUMED WETLAND CONNECTED

WETLAND AND WATERCOURSE DELINEATION STUDY AREA BOUNDARY

TEMPORARY STAGING AREA, PARKING, AND LAYDOWN YARD

SECURITY FENCE

PV MODULES, TYP

10' LANDSCAPING SCREENING ZONE (8-1005.F.5.)

SOLAR LEASE BOUNDARY

CONTINUOUS VEGETATIVE LANDSCAPING SCREEN

PLAT 2 SLIDE 189 PG 9
TP#39-01-026
SAWYER W.C.

BOWLING GREEN ROAD (S.R. 644) (40' SCTY) ODB 00632 PG 301

ORBIT ROAD (S.R. 637) (CABINET 2 SLIDE 189) (R/W VARIES)

GRAVEL ROAD (16' WIDE)

CONC. EQUIPMENT PAD (15'x25')

15" CULVERT

25' CLEAR SIGHT TRIANGLE

MODERATE VOLUME COMMERCIAL ENTRANCE (GRAVEL)

UNDERGROUND MV LINE

UTILITY POLE TYP. 5 PLACES

AERIAL MV LINE

LIMITS OF CONSTRUCTION (LOC)

POI MV INTERCONNECTION

3 STAGGERED ROWS OF TREES AND SHRUBS AT MAXIMUM 8-FT ON CENTER

SDR REQ'D, TABLE 2-5, 25 MPH, = 280' (ACTUAL SDR >280')

SDL REQ'D, TABLE 2-5, 25 MPH, = 280' (ACTUAL SDL >280')

Historical Resource
House, 18493 Orbit Road
DHR# 046-5546
(eligible for listing in the NRHP)

39-01-026H
BABB WHITNEY, LAUREN

FARM FIELD

POND

W

Wetland W02 (PEM)

Wetland W01 (PEM)

Watercourse (EPH)

4.5' WOOD FENCE

ASPHALT

BARN

SHARE THE ROAD

STOP

17B3

18A

18B

23

REVISIONS

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DOCUMENT PREPARED BY:

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SCALE: 1" = 100'

DOCUMENT PREPARED FOR:

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6865 DEERPATH ROAD, SUITE 330
ELKRIDGE, MD 21075
410-779-9377

CONDITIONAL USE CONCEPT PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

DRAWING TITLE
SITE DEVELOPMENT PLAN

DATE	MARCH 29, 2023
JOB NO.	2200547.03
FILE NAME	LD-SK-PN
DRAWN BY	CWW
CHECKED BY	JTP
SHEET NO	C6

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November 21, 2023 9:23 AM

Pivot Energy



Conditional Use Permit Application for: Elk Development, LLC's

(a holding Company of Pivot energy)

VAL035- Orbit Road Project

Pivot Energy
1601 Wewatta St., # 700
Denver, CO 80202

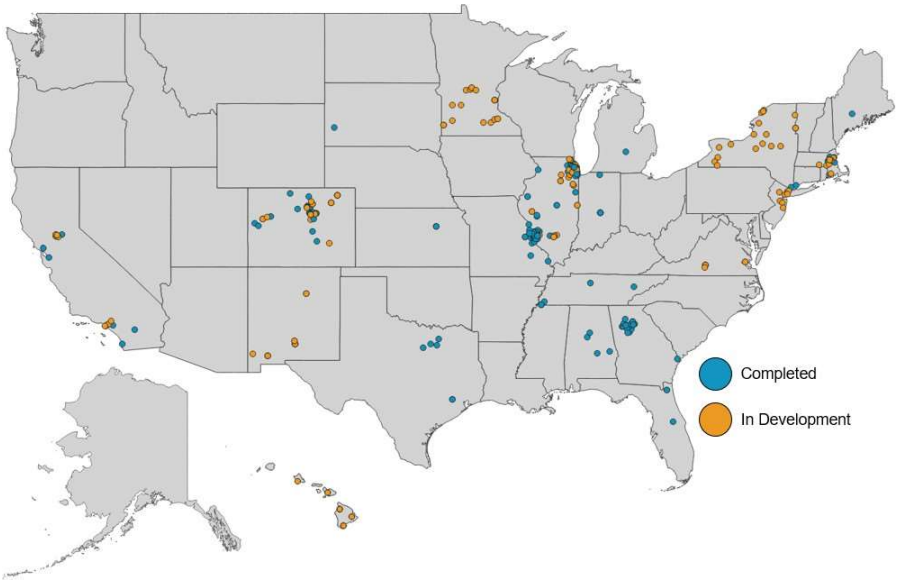
Executive Summary

Elk Development, LLC, a holding company of, Pivot Energy is pleased to apply for a Conditional Use Permit (CUP) from the County of Isle of Wight for Elk Development, LLC's VAL035- Orbit Road Project (aka: Orbit Rd.) (the Project). This Project represents a small, solar photovoltaic (PV) facility of three (3) megawatts in capacity as measured in alternating-current (AC). The proposed project is located at 18213 Orbit Rd, Windsor, Virginia. The subject parcel is identified as tax parcel 39-01-026 owned by W. C. Sawyer. The site is to be accessed off Bowling Green Rd (VA-644), approximately 1.6-miles south of the intersection with Courthouse Hwy (US-258) near Isle of Wight. The site is in the Courthouse Agricultural and Forestal District and Rural Agriculture Conservation (RAC) zoning district in Isle of Wight County. There are no schools or recreation facilities within 1-mile of the site. The Isle of Wight Academy is approximately 1.1-miles northwest of the site. The parcel is 228.3 acres, the project will encompass 28.84 acres (leased area) of the parcel with 19.64 within the fence line and 27 acres of land coming out of production (Please see Plan Drawing C2 for full tabulation of acrage).Pivot Energy Energy has made a formal request to the District to remove the 20 acres.

This project will positively impact the local community by employing local labor, decarbonizing the local grid, offering a discount to local subscribing Dominion customers, and providing increased resources to the County over the life of the project. Pivot's lead developer on this project, Robert Hickox, has previous experience permitting similar solar projects in Virginia. With a strong development and customer relationship background in small utility, commercial, and community solar projects, Pivot continues to expand its offerings throughout the solar industry by working with low-income communities, residential renters and homeowners, agricultural customers, local businesses, & local government organizations.

Prior Solar Development Success:

Recently Completed and Ongoing Projects



Community Solar Development Experience

Background on Pivot Energy

Pivot Energy is a turnkey solar developer of commercial and industrial solar projects founded in 2009 and headquartered in Denver, Colorado. Pivot has become a national leader in commercial and industrial solar projects, with hundreds of successful projects completed for many small, mid-sized and Fortune 500 companies, as well as for nonprofit, government, and military organizations.

Pivot Energy has built or developed the most community solar projects of any developer in Colorado and has expanded to build projects nationwide over the last several years. Our development team works in conjunction with our EPC team to plan a project for success from the beginning and execute in a timely manner. Pivot will provide turnkey development of the community solar garden, from initial site planning and engineering to system design, construction, commissioning, and customer subscriptions.

Pivot Energy is a certified B Corps, using a triple bottom line approach to measure our progress on more than just a financial basis. Our goal is to achieve balance between three, sometimes opposing, ends of People, Planet, and Profit. B Corps, or Benefit Corporations, are redefining success in business to include benefits to workers, society, and the environment. We aim to balance these measures in all aspects of our projects to bring widespread benefit to multiple areas of the community.

Certified B Corporation

Experience with Developing and Operating Similar Solar Facilities

Pivot Energy has invested heavily in both the Colorado community solar market as well as community and commercial solar nationally. Our company also has community solar projects either under construction or in development in states including Minnesota, Illinois, New York, New Mexico, Virginia, and more totaling well over 150MW.

In Colorado Pivot has become the largest community solar developer having built or in process of developing more than 70 MW of community solar. Pivot Energy is also one of the only developers to never abandon a community solar project with a 100% success rate post-bid. Our team's experience is deeply rooted in development having built many of the early projects at previous companies and then coming together as a team of industry experts to accelerate community solar development, construction, and customer adoption throughout the country.

Pivot Energy's SunCentral team has also become the largest and most all-encompassing subscription manager in Colorado with thousands of residential customers and serving more than 16MW of low-income customer capacity throughout Colorado. We are proud that our SunCentral management platform is so widely used by the market. Our team regularly communicates with MPEI to not only manage customers within the market but also look for ways to improve how utilities and developers can communicate and operate to continuously provide better experiences to the end customer and bring projects to successful completion.

Pivot Energy Acquisition by ECP

As of June 1, 2021 Pivot Energy is wholly owned by Energy Capital Partners (ECP)[1]. Founded in 2005, ECP is a leading investor across energy transition, electrification and decarbonization infrastructure assets, including power generation, renewables and storage solutions, environmental infrastructure and efficiency & reliability assets facilitating the energy transition. The ECP team, comprised of 53 people with 500 years of collective industry experience, deep expertise and extensive relationships, has consummated more than 60 transactions over the last 10 years, representing more than $45 billion of enterprise value.

More information on the acquisition available at: https://www.prnewswire.com/news-releases/ecp-announces-acquisition-of-pivot-energy-301303505.html

ECP has extensive experience in energy infrastructure with portfolio companies including Sunnova and Calpine. The investment in Pivot Energy by ECP allows for Pivot to not only develop solar assets and manage customers through our SunCentral platform but to maintain ownership of the assets through their full life. Additionally, Pivot Energy is a part of ECP's continued commitment to Environmental, Social, and Governance (ESG) goals and their expansion into renewable energy. Pivot Energy is ECP's first certified B Corporation and, as noted in their 2021 ESG Report highlights ECP's "ability to source attractive investments that have positive benefits from both a social justice and environmental standpoint."[2]

More information on ECP's ESG goals available at:
https://www.ecpgp.com/system/uploads/fae/file/asset/136/ECP_ESG_Report_2021_Web.pdf

In addition to the funding from ECP, Pivot Energy is nearing closing with both our tax equity partner and back leverage partner for our 2024 project portfolio that this project would be placed into. Pivot Energy is in final negotiations with a single tax equity partner that we have chosen as well as a single back leverage partner which are allowing us to get industry leading terms and cost of capital to make these projects very financially efficient.

In August 2022, Pivot Energy acquires SGC Power a Maryland-based community solar developer, who develops, and designs solar projects that produce long-term lease income for property owners while providing affordable clean energy to surrounding communities.

More information on the acquisition available at: Pivot Energy Announces Acquisition of Maryland-Based Community Solar Developer SGC Power (prnewswire.com)

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[1] PR Newswire – ECP Announces Acquisition of Pivot Energy: https://www.prnewswire.com/news-releases/ecp-announces-acquisition-of-pivot-energy-301303505.html

[2] Energy Capital Partners (ECP) – ESG Report: https://www.ecpgp.com/system/uploads/fae/file/asset/136/ECP_ESG_Report_2021_Web.pdf

Selected Customer List

Our customer list includes small, midsized, and Fortune 500 companies, as well as utilities, nonprofits, governments, and military institutions.



Project Design

Elk Development, LLC seeks to develop Orbit Rd with a collective nameplate capacity up to 3MWac. The clean energy generated by the solar array will be delivered to Dominion Energy's grid (the Grid) at 12kV, 3 phase distribution line along Orbit Road. The Project is designed to be a community solar project that would offer a discount to local Dominion customers on their utility bill once operational. The system will be installed at 18213 Orbit Rd in Isle of Wight County. The subject parcel is identified as tax parcel 39-01-026 owned by W. C. Sawyer. The site is to be accessed off Bowling Green Rd (VA-644), approximately 1.6-miles south of the intersection with Courthouse Hwy (US-258) near Isle of Wight. The property consists of woodland and agricultural fields with some farm buildings. The site is in the Rural Agriculture Conservation (RAC) zoning district.

Orbit Rd. will be comprised of approximately 7,770 solar PV panels from Tier 1 manufacturers. Elk Development and Pivot Energy only uses crystalline solar panel using silicon and inert borophosphosilicate glass on their solar facilities. These panel are recyclable and do not have the potential toxic effects of cadmium-telluride panels (CDTe).

Standard additional equipment includes single axis tracker components, DC to AC inverters, medium-voltage transformers and control cabinets, project switchgear, meters, and the attachment facilities to the current local grid.

These panels will be mounted to a single-axis tracking (SAT) system designed to maximize the panel production by following the rising and setting of the sun. This SAT system includes linked horizontal steel support beams known as torque tubes, with a centrally located drive train system. The rows will be 22 feet apart (center-to-center) and the square footage of the panels will account for approximately 24% of the total Project acreage. The racking system will be affixed to pile-driven metal beams at a depth of approximately 10 feet. At full tilt, the maximum height of any panel will be under fifteen feet (15').

The solar panels in each row will be wired together into a circuit. There will be a DC to AC string inverter for approximately every 3 rows, typically mounted on a piling adjacent to the tracker structure. Once the inverter converts the panels DC power to AC, this power will be transmitted from the string inverters via three-phase direct-buried cables (at a depth of approximately 4.5 feet) and aggregated at the AC collection switch gear before moving to the medium-voltage transformer. This transformer will be mounted on a concrete slab alongside project switchgear and control cabinet. After the transformer steps up the electric power voltage to match the existing Grid, the power is transmitted to the Project's protective recloser and metering equipment before connecting with Dominion's powerlines.

An internal access drive made from all-weather aggregate base will provide access to the array. This Site access will be restricted by a perimeter security fence in compliance with Federal and State regulations. Manual swing gates will be built at the main entrance and other required entry points as determined by maintenance crews and/or safety personnel. National Electric Code Standards for safety and signage will be met or exceeded.

The project will be obscured from view by providing fence and using natural and planted vegetative buffers will meet or exceed the standards outlined by the County of Isle of Wight's ordinance.

Environmental Impact

Land Use

The project area is currently agricultural field that is rented and has been farmed for cotton and corn in prior years. Farm buildings and woodland areas exist on the subject parcel outside the project limits and will be maintained during construction. The remainder of the site will still be farmed. The site is bounded by woodland and agricultural fields with some dwellings. The site fronts on Orbit Rd (VA-637) to the south and Bowling Green Rd (VA-644) to the west. Existing utilities onsite are unknown. Overhead power lines are located along the adjacent public roadways.

Topography

The site topography can be described as fairly flat coastal plain. The site predominately slopes gently eastward with some ponds and low spots on the property. Other than a few isolated berms and channels, there are no steep slopes within the project area. A topographic survey of the project area was performed by Dawood Engineering, Inc. in October and November 2022. The streams and wetlands within the project area were delineated by Dawood Engineering, Inc. in October 2022. The vertical datum used is the North American Vertical Datum 1988 (NAVD 88). The horizontal datum is the North American Datum 1983 (NAD 83), Virginia State Plane Coordinate System.

Soils

The soil delineation for this project was completed using the United States Department of Agriculture Natural Resource Conservation Service Web Soil Survey. Soil types expected within the subject parcel include Slagle fine sandy loam (18A, 18B), Yemassee fine sandy loam (23), Emporia fine sandy loam (5A, 5B), Chipley sand (4), Nawney loam (10), and Nevarc and Remlik soils (11E). Of these, 11E is a highly erodible soil, 5B and 18B are potentially highly erodible, and 4, 5A, 10, 18A, and 23 are not highly erodible. Soils 5A, 5B, 18A, and 18B are prime farmland. Soils 23 are prime farmland if drained. Soils 4, 10, and 11E are not prime farmland.

As indicated by the Virginia Department of Energy geological mapping, the site is underlain by the Windsor Formation (QTw) and Chesapeake Goup (Tc). The Windsor Formation varies from 0-40 feet thick and consists of gray and yellowish to reddish-brown sand, gravel, silt, and clay constituting surficial deposits of extensive plain and coeval, fluvial-estuarine terraces. The Chesapeake Group varies from 0-600 feet thick and consists of fine to coarse, quartzose sand, silt, and clay; variably shelly and diatomaceous, deposited mainly in shallow, inner- and middle-shelf waters.

Wetlands & Receiving Waters

Pivot Energy has engaged a qualified environmental professional to conduct a field delineation to confirm that the site is designed away from the few identified, isolated wetlands to ensure no negative environmental impact. A summarized copy of this report is included in our application packet. Runoff from the subject parcel drains to Great Swamp, or one of its tributaries. Several unnamed streams and ponds are located on the parcel. Great Swamp flows through the eastern edge of the property. Great Swamp is a tributary of Western Branch Reservoir in the James River basin.

Wildlife Habitats

Coordination with various state and federal agencies determined no adverse impacts to threatened or endangered species are anticipated as a result of the project. Documented colonial waterbird colonies

containing great blue herons are within 1 mile of the project area. No colonial waterbird colonies have been identified at the project site. Should any be found, further coordination with the Virginia Department of Wildlife Resources will be required. Refer to the Threatened and Endangered Species Assessment prepared by Dawood Engineering, Inc for additional information.

Cultural and Historical Resources

A Phase I Cultural Resources Survey was completed by Stantec Consulting Services. Inc. in February and March 2023. No previously recorded archaeological nor architectural sites are located within the project area. No new isolated archaeological finds or new archeological sites were identified. No new architectural resources were identified within the project area. Four historical resources located within 0.5 miles of the project were considered eligible or potentially eligible for listing in the NRHP. Refer to the Cultural Resource Assessment prepared by Dawood Engineering, Inc for additional information.

State Agency Diligence

Before solar projects in Virginia can begin construction, they must be vetted by the Virginia Department of Environmental Quality (VADEQ) regulation process in the form of permits by rule (PBR). This state-level oversight ensures that conditions and standards necessary to protect the Commonwealth's natural resources are met by a proposed project. This review, in coordination with the Virginia Department of Historic Resources, the Virginia Department of Wildlife Resources, and the Virginia Department of Conservation and Recreation analyze the proposal for potential impacts on wildlife, historic resources, prime farmland, and environmental impact.

The thorough diligence involved in securing VADEQ's PBR—and any subsequent mitigation measures required—offer strong protection for localities considering a project like ours. The land use decision within our CUP application is only the first of many steps a project must satisfy before submitting for a building permit.

Construction

Construction of the solar energy system, including access road and interconnection to the electric grid, is to occur in one phase. The project is anticipated to take 6 months to complete. Construction is scheduled to start in September 2024. Finish date is anticipated to be in April 2025. This schedule is based on the latest available information. Actual dates may vary based on regulatory requirements, weather, and other unforeseen issues. It is anticipated that onsite work will be conducted during the standard workweek (Monday through Friday) when workers will be onsite from 7:00AM to 5:00PM (10 hours). In the event of inclement weather, missed weekdays may be occasion made up on Saturdays to maintain construction schedules.

Construction activities associated with the project include establishing access, material delivery and storage, loading and hauling, construction of racking system with driven posts for foundations, mounting of solar modules, construction of equipment pads, installing equipment, trenching underground cable ductbanks, backfill and compaction, installing utility poles and aerial power lines, installing security fencing, and revegetation.

Construction of the solar energy system and site appurtenances is to occur in sections to limit disturbed area. The following is a general estimation of duration of the activities associated with the project. Some will occur simultaneously as work progresses. Estimated timing of the construction activities are as follows:

- Sediment control devices are to be installed in each area before any upslope earth disturbance commences. It is anticipated installing the sediment control devices will take approximately 1 week.
- Access road construction is anticipated to take roughly 1 week.
- Construction of the racking system and installation of solar modules will take approximately 4 months.
- Construction of the equipment pad and installation of equipment will take approximately 3 weeks.
- Trenching and cable installation will take approximately 6 weeks.
- Installing the poles and overhead power lines, including the interconnection, will take approximately 2 weeks.
- Final restoration, including seeding and mulching, is to be completed immediately as improvements are finished in each area. It is anticipated final restoration will take approximately 2 weeks.
- Sediment control devices are to be removed once the upslope area has been permanently stabilized. This should take less than 1 week.

Operations and Maintenance

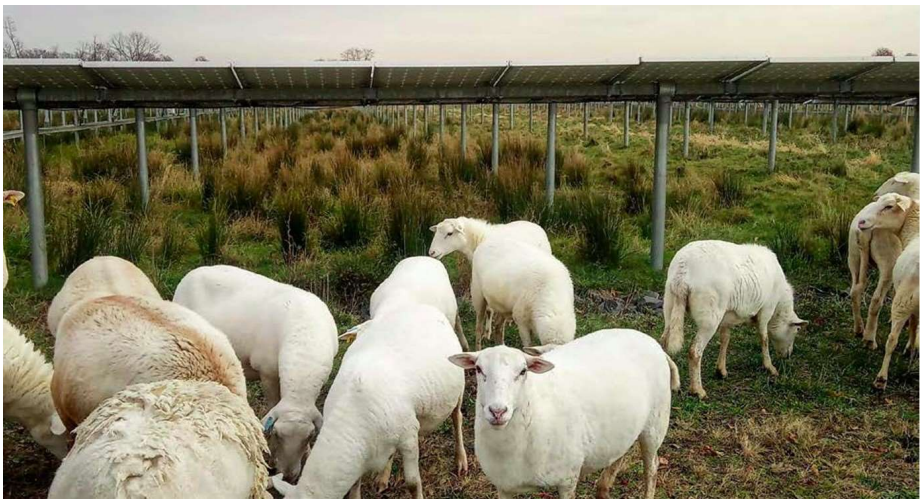
After construction is complete, we anticipate minimal site access requirements for Project maintenance activities. At a minimum, the Project will undergo two annual preventative maintenance checks, once in the spring (~April) and once in the fall (~August). While all products installed on site are of the highest quality per industry standard testing practices & classifications, occasional dispatch to site may be required to correct outages on an as-needed basis. Corrective activities such as this may add two to four site access instances each year.

As the long-term owners & operators of the proposed Project, our team will also actively monitor site performance 24/7 and will address any issues in a timely manner. Based on performance impact, our contracted O&M providers will respond within 24, 48, or 72 hours depending on the outage type. Our sites are unmanned regularly unless maintenance is required, which would occur between Monday – Friday from 8 AM – 5 PM.

Average rainfall in the County of Orbit Rd. anticipated to be adequate for natural cleaning of the panels. Vegetative ground cover will be managed during the growing season in compliance with local requirements, including but not limited to land use permit specifications, water management plans, and site access agreements.

Solar Grazing – Vegetative Maintenance through Dual Ag Use

“Solar Grazing” is a method of vegetation control for solar sites that utilizes livestock. Sheep are best suited due to their size and grazing behavior. Ground cover is established with a “Fuzz and Buzz” mix that is conducive to grazing as well as pollinating. Projects such as the proposed Orbit Rd. would contract with local sheep farmers to move onto site in the Spring, care for them during grazing season, and move off site in the Winter. Sheep are excellent at grazing under panels where mowing is more labor intensive. The perimeter fence protects sheep from predators and solar panels provide shelter from rain, wind, and direct sun on hot days.



Pivot Energy has established a partnership with United Agrivoltaics to help lead our Solar Grazing initiatives. With a network of sites across the country and partners in Solar Grazing since 2015, United Agrivoltaics will assist Pivot Energy in a vegetative maintenance plan for this dual use.

Additionally, Pivot is currently evaluating dual harvest crop production on all of our portfolio sites. Depending on site characteristics, tenant farmer availability. Pivot seeks to prioritize crops for hay/alfalfa production, herbs, or cover crop mixes.

Impacts and Mitigations

Water – No on-site source of potable water will be required during construction or operations for Orbit Rd.. If any on-site water source is required during construction or operation, it will be supplied by the host Project and sourced offsite. No new well will be dug for this project.

Sound – The majority of sound associated with the proposed Project will occur during construction. This is expected to be the result of material deliveries to the Property and support beam installation for the array. Impacts from noise are mitigated from a selected site that has few abutting neighbors and restricted hours of construction operations.

Once operational, Orbit Rd. will be practically inaudible. At a distance of 3ft from the security fence, our inverters and racking equipment create a sound comparable to a home HVAC unit. These sound measurements fall to less than 50dB at only 50ft from the perimeter—equivalent to background noise in the County.

Glare – No glare hazard is expected during construction or operations. Our Tier I panels are treated with anti-glare coating and are designed to absorb as much sunlight as possible. The setbacks and

robust vegetative screening from neighbors will further obscure any visual impact of the proposed Project.

Odor – Our EPC team will store, collect, and dispose of any solid construction material waste to prevent any odors from the Site, mitigating any impact on neighboring properties. No detectable odors are produced from the solar array components during operations.

Dust – Possible dust occurrence during operations is most likely to result from delivery or construction trucks on the Site. This will be mitigated by spraying water on dry dirt and enforcing a 5 MPH speed limit within the construction area. Minimal vehicle or foot traffic during operations and vegetative groundcover will naturally mitigate against concerns for dust.

Security and Access – The perimeter fence around the array will be no taller than 8 feet in height and contain no barbed wire. This fence will be black or another neutral color with final design approval to be sought from the Planning Director. The gates within the fence will remain locked while access will be coordinated through our operations and maintenance personnel. Our Site will provide a “Knox Box” to provide 24/7 access for local emergency personnel. The Applicant will ensure suitable access from Pocket Road is maintained for fire or other emergency vehicles.

Removal

At the end of the Project’s life, it will be decommissioned and removed from the Property. Formal notice of end of operations will be sent to County via Certified Mail. The Project will then be completely removed from the Property and reasonably restored to previous condition within 365 days of receipt of notice. Orbit Rd. would expect County approval of our decommissioning plan—to include posting of surety funds—prior to building permit issuance. We have included a preliminary decommissioning cost estimate in our submission.

Economic Development

Jobs

To the extent possible, Orbit Rd. will source local materials and labor for the construction and maintenance of the project. We estimate that this project will create approximately 30 new construction positions and 1-2 operations positions. Operations jobs will be focused on facility upkeep with responsibilities such as vegetation management, equipment repair, and component maintenance. Typical cadence for site maintenance is every two to three months.

Increased County Revenue

Additionally, this project’s lease revenue would provide direct fiscal benefit to the County. This has been outlined in a report commissioned from MAGNUM ECONOMIC’s *“VAL035- ORBIT ROAD ECONOMIC AND FISCALCONTRIBUTION TO ISLE OF WIGHT COUNTY, VIRGINIA*”. This report has been included in our application.

Regulatory Conformance

Virginia Code § 15.2-2232 requires that the Board of Supervisors makes a determination as to whether or not the general location, character, and extent of a proposed solar energy facility is in substantial accord with the locality's adopted comprehensive plan.

The Project includes construction of an approximately 20-acre solar farm within the existing field. Existing woodland and buildings are to remain. The proposed development is shown on the concept plan included with the conditional use application. A solar energy system (utility service/major) is a permissible use by conditional use within the RAC district. This statement has been prepared to show the proposed use will conform to the standards of the Zoning Ordinance. We believe the standards of section 1-1017 (Conditional Uses) have been met and respectively request the conditional use be granted. The standards for review and the conditions and guarantees have been addressed as follows:

Zoning Ordinance Section 1-1017.H – Standards for review of a conditional use application

1. *That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;*
   Any effects of the proposed use on the public health, safety, and general welfare would be minimal. The developer intends to design, construct, operate, inspect, and maintain the proposed development to meet or exceed all applicable federal, state, and local requirements and in general conformance with manufacturer recommendations and industry standards. All proposed equipment is to be readily accessible for fire and police protection. Measures, such as vegetative screening and security fencing, are proposed to mitigate any potential adverse effects and limit access.
2. *That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;*
   The proposed use is compatible with the other uses in the area providing energy for the neighborhood and will not be injurious nor substantially impair the use of other property in the area. Existing and proposed screening will limit the visual impact from adjacent property and roadways. There are similar solar projects in the immediate area of the site. Proximity to three phase power lines and substation which limits the available areas suitable for the installation of solar projects.
3. *That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;*
   The proposed use does not require permanent water supply or sewage disposal. With established vegetation beneath and around the solar panels, the existing storm drainage facilities should be adequate and will be supplemented with further management facilities as needed during Site Plan Review. A short gravel access road is to be constructed to provide direct access to the solar energy system. Connection to the existing power lines in the adjacent roadway is to be provided in conformance with the electric company and regulatory standards.
4. *That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;*

Traffic generated by the use would be negligible consisting of the occasional inspection or maintenance vehicle. A gravel drive from the public roadway is to be constructed to provide access directly to the solar farm.

5. *That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County comprehensive Plan;*

The proposed use is consistent with the comprehensive plan. As stated in the plan, a solar farm is an appropriate use for the Rural Agricultural Conservation area. The use is consistent with the priority to protect natural resources and rural lifestyle and the policy to facilitate non-residential development. Converting the area from an agricultural field has the potential to reduce the amount of stormwater runoff, increasing groundwater quantity, by changing the ground cover. This would also potentially improve the quality of surface water and groundwater by reducing the use of fertilizers and pesticides. The combination of natural and supplemental screening and fencing to be maintained around the solar panels will preserve the rural character of the area.

"Require facilities to be located adjacent or close to existing electric transmission lines."
The project proposes to interconnect to the Dominion three-phase powerlines that run across the property's road frontage along Orbit Rd.

"Require facilities to be located outside of DSDs."
The project is sited on a property that is approximately 4.0 miles away from the nearest DSD (Windsor).

"Avoid or minimize impact to prime farmland or farmlands of statewide importance as defined by the USDA and Commonwealth of Virginia, respectively."
The parcel being used takes up only 20 acres of the 228 acre property, which will continue to be farmed. Given the average farm size of 340 acres and over 80,000 total farm acres in Isle of Wight County, Orbit Rd presents a negligible impact on farmlands, which it more than offsets by providing homes with clean, locally generated power.

Additionally Pivot Energy promotes as a standard the use of sheep grazing as vegetation control on the site, which will allow the land to continue to function as agricultural lands.

"Facilities should be located outside of the viewshed of any scenic, cultural, or recreational resources (i.e., solar facilities may not be seen from surrounding points that are in line-of sight with a resource location) or within the Highway Corridor Overlay district."
A the proposed planted vegetative buffer along Orbit and Bowling Green will provided complete screening of the site from the public. The Comprehensive Plan also outlines several Policy themes with Action Items associated toward those ends. Below are some of the more applicable selections regarding solar projects and our determination of the project would fit.

Preserve: Protect water quality from sedimentation and pollutants carried by runoff through the continued enforcement of the local stormwater management program.
Before final site plan approval, Pivot Energy must secure confirmation from the Virginia Department of Environmental Quality that the designed stormwater management features will meet or exceed the rates of current property use. Verification of this confirmation will safeguard against any degradation of local

stormwater management as a result of the project.

Shape: Protect rural historic landscapes by ensuring development is consistent with existing community character through performance criteria for new development.
The vegetative screening plans provided offer planted bufferings required by the solar ordinance. Exceeding the vegetative screening standard by this degree shows the specific focus on existing community character and ensuring Orbit Rd is a mindful neighbor.

Serve: Encourage collaboration with the private sector to provide integrated infrastructure in the most efficient way possible.
Serve: Design and develop public facilities, wherever possible, that take advantage of alternative energy sources and conserve energy in operations.
Serve: Ensure all major utility service use types mitigate any potential negative impacts to the character and future viability of surrounding land uses.

The Orbit Road project offers alternative energy sourced power generation for the local community, financed by private investment, to the net fiscal benefit for the county. By designing vegetative buffering that exceeds the county requirement for solar projects in its particular location, Orbit Rd is sited respectfully to local character and land uses while allowing the site landowner to exercise his property rights.

Educate: Continue to grow programs that enhance job skills of County residents needed by employers.

Pivot has contacted SHINE to coordinate plans for community colleges and academic institutions across Virginia so we can increase access to solar training programs across the state.

6. *That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use;*

The developer intends to design, construct, operate, inspect, and maintain the proposed development to meet or exceed all applicable regulations.

7. *That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.*

The proposed use at this location will not result in a saturation of similar uses in the same general neighborhood. In this area, the surrounding “neighborhood” consists primarily of large-scale agricultural tracts zoned Rural Agricultural Conservation. The proposed project will be located on an approximately 18-acre portion of a larger 228+ acre parcel. The remainder of the parcel will be retained for agricultural use. There is one other approved solar energy project (Nuby Run Solar) located at the intersection of Courthouse Highway and Route 644 (Redhouse Road). At their closest point, these two projects would be located over a half-mile from each other and would be separated by intervening agricultural and residential parcels. One other approved solar project (New Leaf Solar) is located further up Courthouse Highway past the Route 692 intersection on the other side of Isle of Wight County Courthouse and Poor House Road. Proximity to three phase power lines and substation which limits the available areas suitable for the installation of solar projects. After this site is constructed the electrical infrastructure supporting these facilities will be built out and not able to support further development.

The site area for the Elk Development Project would be over a mile from the New Leaf Solar Project and the intervening area contains wooded tracts and open farmland. See below, a screenshot aerial illustration of the proposed project and land uses in the surrounding area. While the approval of the Elk Development Project would result in one additional solar facility in the area, the applicant does not believe the project would lead to a “saturation” of solar projects

in the area. To the contrary, the area would remain primarily agricultural in use and the Elk Development would likely be neither seen nor heard from public rights-of-way or nearby residential uses.



Zoning Ordinance Section 1-1017.I – Conditions and guarantees

1. *The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable;*

   N/A - No persons are to be located on-site. Any necessary maintenance personnel will be stationed elsewhere. Operations will be continuous while the sun is shining though personnel will generally only be onsite during inspections and maintenance.

2. *Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;*
   The nature of the proposed use, the site layout, and its relation to access streets are such that both pedestrian and vehicular traffic would not conflict with the normal traffic of the neighborhood. Traffic would be minimal utilizing a proposed gravel drive off Bowling Green Road for access. Adequate parking is proposed for the occasional need. Fencing is proposed to restrict access.

3. *The orderly growth of the neighborhood and community and the fiscal impact on the county;*
   The proposed use is of such location, size, and character that, in general, it will be in harmony with the appropriate and orderly growth of the neighborhood and will not be detrimental to the orderly growth of adjacent properties. The proposed use will a provide supplementary energy source for the community. Traffic will be minimal and sufficient landscaping is proposed to screen adjacent properties. The proposed use will not have a significant fiscal impact on the county, other than the increase in tax base due to the change in use.

4. *The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;*
   The proposed use, under normal operations, is not expected to produce any significant effects that would adversely impact the surrounding properties. Solar panels are designed to absorb light, with any glare to be minimized by the angle and tilt of the panels. Additionally, the proposed screening will further obscure any glare to adjacent roads and properties. All equipment is to be designed and operated in accordance with Federal, State, and local regulations. The solar panels will produce virtually no noise, vibrations, fumes, smoke, gas, dust, or odors. The system equipment is not expected to generate significant noise levels, vibrations, fumes, smoke, gas, dust, or odors. The location of the solar panels and equipment within the parcel and the use of vegetative screening will reduce the effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise from the use adversely impacting surrounding properties.

5. *Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the county or persons to supply such services;*
   The proposed use would not create undue impacts to police, fire protection, or ambulance services. Fencing is proposed to restrict access and standard fire safety measures are to be utilized to reduce fire hazards. All proposed equipment is to be readily accessible for fire and police protection. Emergency response service to the site is to be facilitated through the construction of a new access road. Connection to the existing power lines in the adjacent roadway is to be provided in conformance with the electric company and regulatory standards. The proposed use doesn't require sewerage, water, or waste disposal services.

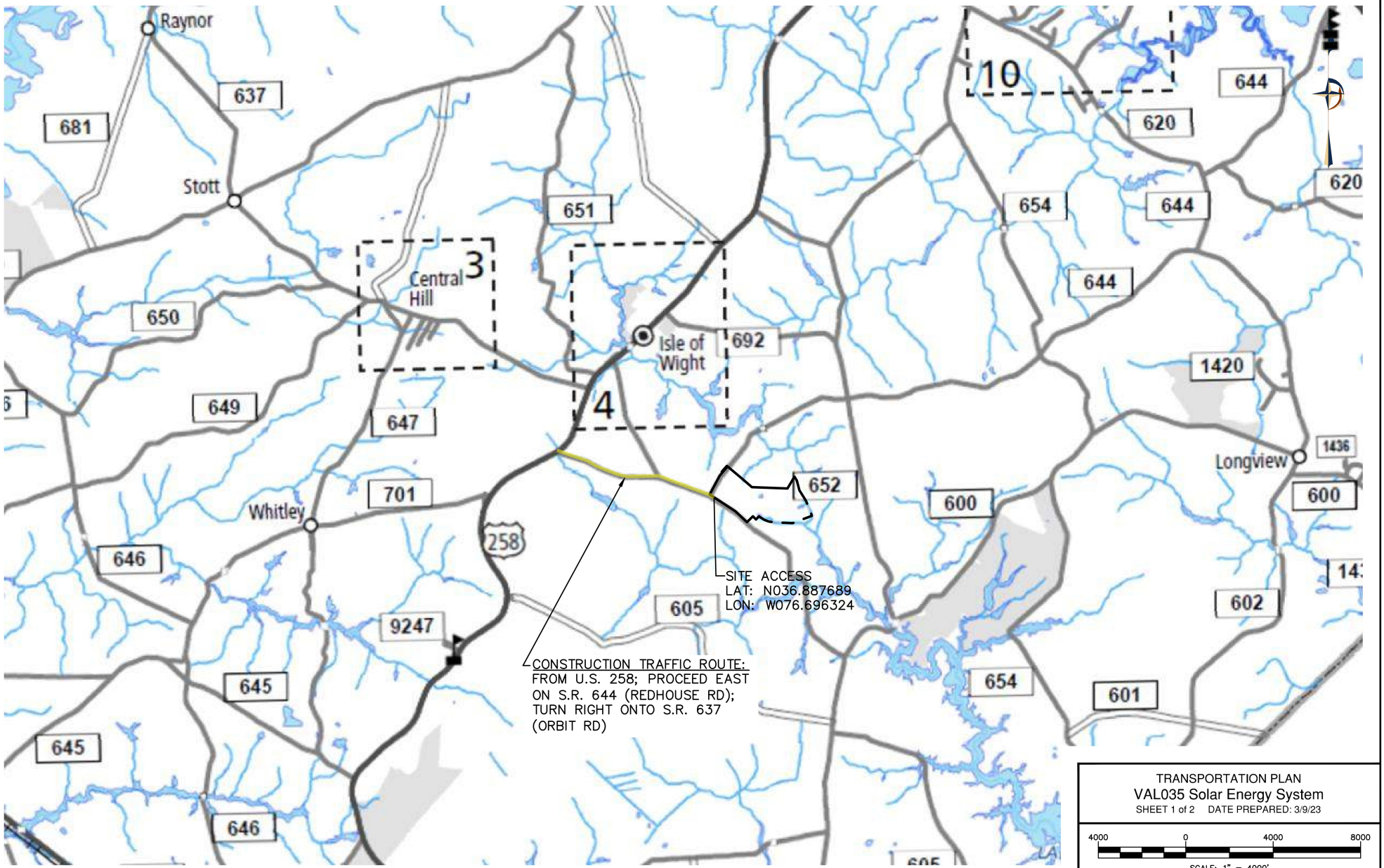
6. *The degree to which the development is consistent with generally accepted engineering and planning principles and practices;*
   The developer intends to design, construct, operate, inspect, and maintain the proposed development to be consistent with generally accepted engineering and planning principles and practices.

7. *The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;*
   The nearest such public facility is the Isle of Wight Academy approximately 1.1-miles northwest of the site.

8. *The purposes set forth in this ordinance, the county's comprehensive plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;*
   The proposed use does not conflict with the purposes set forth in the ordinance nor comprehensive plan. The proposed use is consistent with the comprehensive plan. Due to the nature of the use, the effect on the roads, parks, schools, sewers, water, population, and recreation would be negligible. The use does not involve the construction of facilities that would increase the local population or the demand for public facilities and services.

9. *The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space;*
   Any environmental impact from the proposed use would be negligible. The proposed construction area is limited to the public right-of-way and existing farm field. Two unconnected wetlands totaling approximately 0.9-acres are within the project limits and will be impacted by installation and operation of solar panels and underground cables. Recreation and open space are not applicable to this development as it will not result in additional residents.

10. *The preservation of cultural and historic resources or landmarks.*
    There are no known cultural or historic resources or landmarks within the project area. The proposed construction area is limited to the public right-of-way and existing farm field. Four historical resources are located west of the project area, the closest over 500-feet away. Existing and proposed screening will minimize any adverse impact to these resources. Mitigation for any adverse effect of the proposed project on the resources is being coordinated with the Virginia Department of Historic Resources.



TRANSPORTATION PLAN
VAL035 Solar Energy System
SHEET 1 of 2 DATE PREPARED: 3/9/23

4000 0 4000 8000
SCALE: 1" = 4000'

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VAL035- ORBIT ROAD

ECONOMIC AND FISCAL CONTRIBUTION TO ISLE OF WIGHT COUNTY, VIRGINIA



Prepared for

Pivot Energy

MAY 2024

MANGUM economics

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About Mangum Economics, LLC

Mangum Economics is a Glen Allen, Virginia based firm that was founded in 2003. Since then, we have become known as a leader in industry analysis, economic impact assessment, policy and program evaluation, and economic and workforce strategy development. The Mangum Team specializes in producing objective and actionable quantitative economic research that our clients use for strategic decision making in a variety of industries and environments. We know that our clients are unique, and that one size does not fit all. As a result, we have a well-earned reputation for tailoring our analyses to meet the specific needs of specific clients, with a specific audience.

Most of our research falls into four general categories:

- **Information Technology:** Working with some of the largest names in the industry, to date the Mangum Team has produced analyses of the economic and fiscal impact of data centers at the state and local level across the country.
- **Energy:** The Mangum Team has produced analyses of the economic and fiscal impact of over 29 GW of proposed solar, wind, battery storage, and hydro projects spanning twenty-seven states. Among those projects was Dominion Energy's 2.6 GW Coastal Virginia Offshore Wind project off of Virginia Beach. In addition, the Mangum Team has also performed economic and fiscal impact analyses for the natural gas, nuclear, oil, and pipeline industries.
- **Economic Development and Special Projects:** The Mangum Team has performed hundreds of analyses of proposed economic development projects. Most recently, we were called upon by Henrico County to provide an analysis of the proposed $2.3 billion Green City "net-zero eco district." The Mangum Team has also authored multiple economic development plans, including identifying industries that were likely recruitment targets because of the high-speed MAREA and BRUSA sub-sea cable landings in Virginia Beach.
- **Policy Analysis:** The Mangum Team also has extensive experience in identifying and quantifying the intended and unintended economic consequences of proposed legislative and regulatory initiatives.

The Project Team

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Executive Summary

This report assesses the economic and fiscal contribution that the proposed Orbit Road project would make to Isle of Wight County, Virginia. The primary findings from that assessment are as follows:

1) **VAL035- Orbit Road (Orbit Road) is a proposed 3-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located near Orbit Road and Bowling Green Road in Isle of Wight County, Virginia. The total actively used, fenced-in solar site including a solar buffer would be approximately 28.84 acres of agricultural land.**

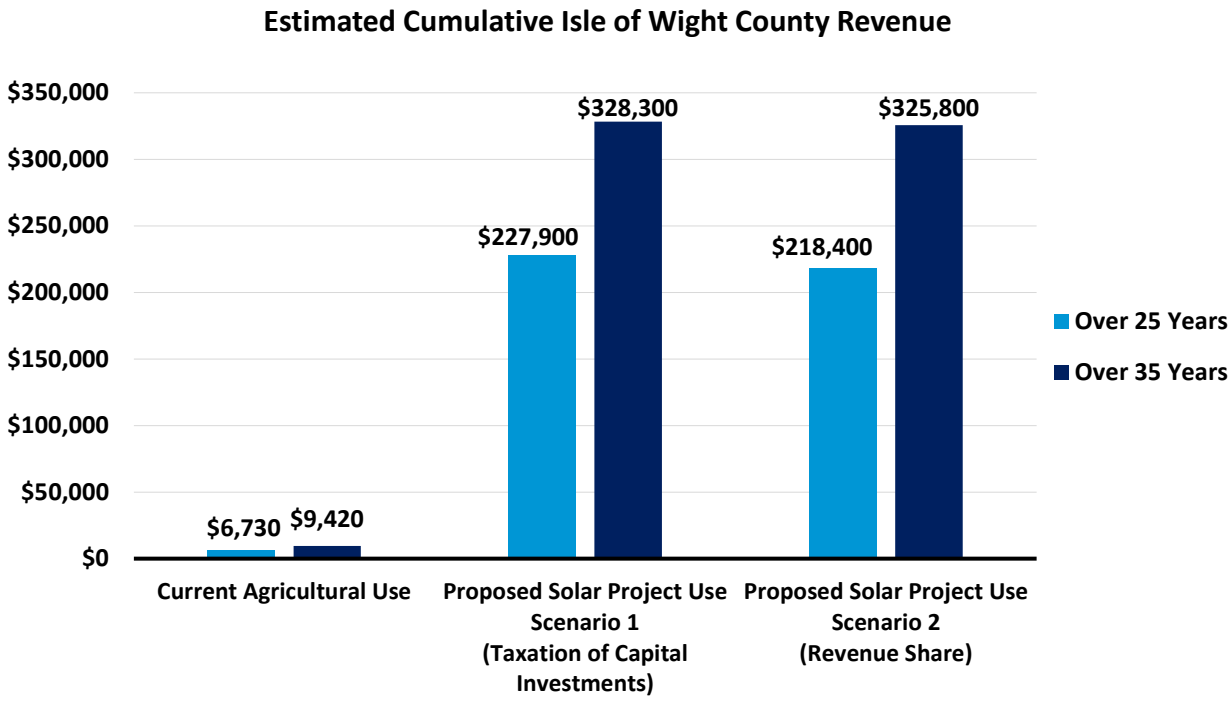
2) **The proposed Orbit Road project would make an economic contribution to Isle of Wight County:**

   - The proposed Orbit Road project would provide an estimated one-time pulse of economic activity to Isle of Wight County during its construction phase supporting approximately:
     - 3 jobs.
     - $98,000 in associated wages and benefits.
     - $180,500 in economic output.
   - The proposed Orbit Road project would provide an estimated annual economic impact to Isle of Wight County during its ongoing operational phase supporting approximately:
     - < 1 job.
     - $19,300 in associated wages and benefits.
     - $63,900 in economic output.

3) **The Orbit Road project would have a significantly greater fiscal impact on Isle of Wight County than the property generates in its current agricultural use:**

   - $24,000 in state and local tax revenue from the one-time pulse of economic activity associated with the project's construction.
   - The proposed Orbit Road project would generate approximately $227,900 in cumulative county revenue over a 25-year operational life and approximately $328,300 in cumulative county revenue over a 35-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments (Scenario 1).
   - The proposed Orbit Road project would generate approximately $218,400 in cumulative county revenue over a 25-year operational life and approximately $325,800 in cumulative county revenue over a 35-year operational life assuming revenues are generated from the reassessment of the real property and payments associated with a locally adopted revenue share ordinance (Scenario 2).

- In the property's current agricultural use, it would generate approximately $6,730 in cumulative county revenue over 25 years and approximately $9,420 in cumulative county revenue over 35 years.



The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.

Introduction

This report assesses the economic and fiscal contribution that the proposed VAL035- Orbit Road (Orbit Road) project would make to Isle of Wight County, Virginia. This report was commissioned by Pivot Energy and produced by Mangum Economics.

The Project

Orbit Road is a proposed 3-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located near Orbit Road and Bowling Green Road in Isle of Wight County, Virginia. The total actively used, fenced-in solar site including a solar buffer would be approximately 28.84 acres of agricultural land.

Economic and Fiscal Impact

This section quantifies the economic and fiscal contribution that the proposed Orbit Road project would make to Isle of Wight County. The analysis separately evaluates the one-time pulse of economic activity that would occur during the construction phase of the project, as well as the annual economic activity that the project would generate during its ongoing operations phase.

Method

To empirically evaluate the likely local economic impact attributable to the proposed Orbit Road project, the analysis employs a regional economic impact model called IMPLAN.[1] The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S., and in Virginia is used by UVA's Weldon Cooper Center, the Virginia Department of Planning and Budget, the Virginia Employment Commission, and other state agencies and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, as when the Orbit Road project purchases goods and services – or when contractors hired by the facility use their salaries and wages to make household purchases – thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier.

One of the primary advantages of the IMPLAN model is that it uses regional and national production and trade flow data to construct region-specific and industry-specific economic multipliers, which are then further adjusted to reflect anticipated actual spending patterns within the specific geographic study area

[1] IMPLAN is produced by IMPLAN Group, LLC.

that is being evaluated. As a result, the economic impact estimates produced by IMPLAN are not generic. They reflect as precisely as possible the economic realities of the specific industry, and the specific study area, being evaluated.

In the analysis that follows, these impact estimates are divided into three categories. First round direct impact measures the direct economic contribution of the entity being evaluated (e.g., own employment, wages paid, goods and services purchased by the Orbit Road project). Second round indirect and induced impact measures the economic ripple effects of this direct impact in terms of business to business, and household (employee) to business, transactions. Total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

Construction Phase

This portion of the section assesses the economic and fiscal impact that the one-time pulse of activity associated with construction of the proposed Orbit Road project would have on Isle of Wight County.

Economic Impact Assumptions

The analysis is based on the following assumptions:

- The Orbit Road project would employ approximately 50 full-time equivalent construction workers. Approximately 80 percent of those workers would be from Virginia, but are assumed to be from outside of Isle of Wight County.[2]
- The out-of-state workers would stay in the county during the construction period.
- Per diem spending for in-state workers would be approximately $15.[3]
- Per diem spending for out-state workers would be approximately $139.[4]
- All construction expenditures are assumed to take place during a six-month period.[5]

Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of one-time economic and fiscal impact. As shown in Table 1, construction of the proposed Orbit Road project would not provide a direct impact to Isle of Wight County because the construction labor is assumed to be from outside of the county.[6]

[2] Data Source: Pivot Energy.
[3] Data Source: U.S. General Services Administration.
[4] Data Source: U.S. General Services Administration.
[5] Data Source: Pivot Energy.
[6] Per diem spending is considered a household (employee) to business transaction and is therefore not a direct impact.

Taking into account the per diem spending of the construction workers, the total estimated one-time impact on Isle of Wight County would support approximately: 1) 3 jobs, 2) $98,000 in wages and benefits, 3) $180,500 in economic output, and 4) $24,000 in state and local tax revenue.

Table 1: Estimated One-Time Economic and Fiscal Impact on Isle of Wight County from Construction of the Orbit Road Project

Economic Impact	Employment	Wages and Benefits	Output
1st Round Direct Economic Activity	-	-	-
2nd Round Indirect and Induced Economic Activity	3	$98,000	$180,500
Total Economic Activity	**3**	**$98,000**	**$180,500**
Fiscal Impact			
State and Local Tax Revenue			**$24,000**

**Totals may not sum due to rounding.*

Ongoing Operations Phase

This portion of the section assesses the annual economic and fiscal impact that the proposed Orbit Road project would have on Isle of Wight County during its operational phase.

Economic Impact Assumptions

The analysis is based on the following assumptions:

- The Orbit Road project would spend approximately $53,000 each year for maintenance and repair, vegetative control, and other operational expenditures.[7]
- The Orbit Road project would make confidential lease payments to landowners.[8]

Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 2, annual operation of the proposed Orbit Road project would directly support approximately: 1) < 1 job, 2) $13,800 in wages and benefits, and 3) $41,800 in economic output to Isle of Wight County.

Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on Isle of Wight County would be approximately: 1) < 1 job, 2) $19,300 in wages and benefits, and 3) $63,900 in economic output.

[7] Data Source: Pivot Energy.
[8] Data Source: Pivot Energy.

Table 2: Estimated Annual Economic Impact on Isle of Wight County from the Ongoing Operation of the Orbit Road Project

Economic Impact	Employment	Wages and Benefits	Output
1st Round Direct Economic Activity	< 1	$13,800	$41,800
2nd Round Indirect and Induced Economic Activity	< 1	$5,500	$22,100
Total Economic Activity	**< 1**	**$19,300**	**$63,900**

Fiscal Impact Assumptions

The analysis is based on the following assumptions:

- Total capitalized investment in machinery and tools in the Orbit Road project is estimated to be approximately $6.1 million.[9]
- The approximately 28.84 actively used, fenced-in acres including a solar buffer would be removed from the land use program and reassessed at a solar use assessment value of $15,000 per acre.[10]
- The initial interconnection request for Orbit Road was filed in 2021.[11]
- Tax rates are assumed to remain constant throughout the analysis.
- The Orbit Road project's total generation capacity would be 3 MW AC.[12]
- The Orbit Road project would become operational in 2025.[13]

Fiscal Impact

This portion of the section quantifies the direct fiscal contribution that the proposed Orbit Road project would make to Isle of Wight County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Orbit Road project would generate for Isle of Wight County over a 25-year period and a 35-year period from the increased property assessments associated with reassessing the site as solar use property. Scenario 1 then describes the additional revenue Orbit Road would generate for Isle of Wight County from taxes levied on the capital investment in machinery and tools, while Scenario 2 tax revenue generated from the capital investment will be replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

[9] Data Source: Derived from data provided by Pivot Energy.
[10] Data Source: Isle of Wight County staff and Pivot Energy.
[11] Data Source: Pivot Energy.
[12] Data Source: Pivot Energy.
[13] Data Source: Pivot Energy.

Reassessment of Property

Table 3 details the increased tax revenue associated with reassessing the 28.84-acre solar site as solar use property. The county real estate tax revenue from the fenced-in acreage after reassessment is estimated to be approximately $3,070 per year, for a cumulative total of approximately $76,800 over a 25-year operational life and approximately $107,500 over a 35-year operational life. Adding one-time rollback taxes of approximately $3,130 increases that cumulative total to approximately $79,900 over 25 years and approximately $110,600 over 35 years. In contrast, the property currently generates approximately $270 per year for the county, for a cumulative total of approximately $6,730 over 25 years and approximately $9,420 over 35 years.

Table 3: Estimated County Revenue Generated by the Proposed Orbit Road Project over 25 Years and 35 Years from Real Estate Taxes

	Over 25 Years	Over 35 Years
Estimated Increased Appraised Value of Property[14]	$432,600	$432,600
Isle of Wight County Real Estate Tax Rate[15]	0.0071	0.0071
Annual County Real Estate Tax – Solar Use	$3,070	$3,070
Revenue over Operational Life	**$76,800**	**$107,500**
One-time Rollback Taxes[16]	**$3,130**	**$3,130**
Total Cumulative Revenue over Operational Life	**$79,900**	**$110,600**

**Totals may not sum due to rounding.*

Scenario 1: Taxation of Capital Investment in Machinery and Tools

Table 4 separately details the additional annual revenue that the proposed Orbit Road project would generate for Isle of Wight County over a 25-year period and a 35-year period from taxes levied on capital investment in machinery and tools. 1) the taxable portion of capital investments based on the stepdown local tax exemption pursuant to Virginia Code §58.1-2606.1[17], times 2) Isle of Wight County's depreciation guidelines for machinery and tools[18], times 3) Isle of Wight County's real estate tax rate of $0.71 per $100 of assessed value pursuant to Virginia Code §58.1-2606.1.[19]

[14] Calculated as 28.84 acres times $15,000 per acre.
[15] Data Source: Isle of Wight County's Commissioner of Revenue's office.
[16] Rollback taxes are computed as the difference between the current land use value assessment tax and the tax on the fair market value for the affected acreage for five complete tax years plus the current year. Does not account for changes in assessment values over time.
[17] Virginia Code §58.1-2606.1 stipulates that solar facilities 5MW or less are subject to a stepdown exemption from local property taxes if the project is approved by the locality on or after July 1, 2022. The amount of the exemption is 80 percent in the first five years, 70 percent in years six through ten, and 60 percent thereafter.
[18] Because Orbit Road would be independently owned and does not meet the definition of an "Electric Supplier" because it is under 25 MW, it would be assessed locally.
[19] Data Source: Isle of Wight County's Commissioner of Revenue's office. Pursuant to Virginia Code §58.1-2606.1, Orbit Road would be taxable at a rate not exceeding the county's real estate tax rate.

As the data in Table 4 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Orbit Road project would be approximately $3,480 in the project's first year of operation, with that figure projected to increase to approximately $6,960 in year 11 of the project as the value of the exemption is reduced for a cumulative total of approximately $148,000 over 25 years and approximately $217,600 over 35 years.

Table 4: Estimated County Revenue by Proposed Solar Investment Over 25 Years and 35 Years

Year	Total Capital Investment Subject to Exemption[20]	Depreciated Value of Taxable Capital Investment[21]	Additional Annual County Tax Revenue Solar Investment[22]
1	$6,130,600	$490,448	$3,480
2	$6,130,600	$490,448	$3,480
3	$6,130,600	$490,448	$3,480
4	$6,130,600	$490,448	$3,480
5	$6,130,600	$490,448	$3,480
6	$6,130,600	$735,672	$5,220
7	$6,130,600	$735,672	$5,220
8	$6,130,600	$735,672	$5,220
9	$6,130,600	$735,672	$5,220
10	$6,130,600	$735,672	$5,220
11	$6,130,600	$980,896	$6,960
12	$6,130,600	$980,896	$6,960
13	$6,130,600	$980,896	$6,960
14	$6,130,600	$980,896	$6,960
15	$6,130,600	$980,896	$6,960
16	$6,130,600	$980,896	$6,960
17	$6,130,600	$980,896	$6,960
18	$6,130,600	$980,896	$6,960
19	$6,130,600	$980,896	$6,960
20	$6,130,600	$980,896	$6,960
21	$6,130,600	$980,896	$6,960
22	$6,130,600	$980,896	$6,960
23	$6,130,600	$980,896	$6,960
24	$6,130,600	$980,896	$6,960
25	$6,130,600	$980,896	$6,960

[20] Data Source: Pivot Energy.

[21] Accounts for Isle of Wight County's depreciation guidelines for Machinery and Tools. Also accounts for the stepdown exemption from local property taxes pursuant to Virginia Code §58.1-2606.1 for projects 5 MW or less and approved by a locality after July 1, 2022. The amount of the exemption is 80 percent in the first five years, 70 percent in years six through ten, and 60 percent thereafter.

[22] Calculated pursuant to Virginia Code §58.1-2606.1. Because Orbit Road would be independently owned and does not meet the definition of an "Electric Supplier" because it is under 5 MW, it would be taxed at the Isle of Wight County real estate tax rate of $0.71 per $100.

Year	Total Capital Investment Subject to Exemption[20]	Depreciated Value of Taxable Capital Investment[21]	Additional Annual County Tax Revenue Solar Investment[22]
CUMULATIVE TOTAL OVER 25 YEARS			**$148,000**
26	$6,130,600	$980,896	$6,960
27	$6,130,600	$980,896	$6,960
28	$6,130,600	$980,896	$6,960
29	$6,130,600	$980,896	$6,960
30	$6,130,600	$980,896	$6,960
31	$6,130,600	$980,896	$6,960
32	$6,130,600	$980,896	$6,960
33	$6,130,600	$980,896	$6,960
34	$6,130,600	$980,896	$6,960
35	$6,130,600	$980,896	$6,960
CUMULATIVE TOTAL OVER 35 YEARS			**$217,600**

**Totals may not sum due to rounding.*

Scenario 1: Total Fiscal Impact

Table 5 combines the results from the calculations depicted in Tables 3 and 4 to provide an estimate of the cumulative fiscal contribution that the proposed Orbit Road project would make to Isle of Wight County over its operational life under Scenario 1. As these data indicate, that cumulative total is approximately $227,900 over 25 years and approximately $328,300 over 35 years.

Table 5: Estimated Cumulative County Tax Revenue from the Proposed Orbit Road Project under Scenario 1

	Over 25 Years	Over 35 Years
County Real Estate Tax Revenue	$79,900	$110,600
County Revenue from Taxation of Capital Investments	$148,000	$217,600
TOTAL Cumulative Revenue	**$227,900**	**$328,300**

Scenario 2: Revenue Share Ordinance

The following section describes the additional annual revenue that the proposed Orbit Road project would generate for Isle of Wight County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636. The Virginia Code currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect on July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026. Section 58.1-3660 further stipulates that capital investment associated with the solar project will be exempt from taxation if the county adopts an energy revenue share ordinance.

Table 6 details the revenue generated from a revenue share ordinance including the 10 percent escalator. Based on a total generation capacity of 3 MW AC and an assumed commissioning date of 2025, a revenue share ordinance would generate approximately $138,500 over a 25-year operational life and approximately $215,200 over a 35-year operational life.

Table 6: Estimated County Revenue Generated from Revenue Share Ordinance over 25 Years and 35 Years[23]

Year	MW	Payment per MW with Escalator	Annual County Revenue
1	3	$1,400	$4,200
2	3	$1,540	$4,620
3	3	$1,540	$4,620
4	3	$1,540	$4,620
5	3	$1,540	$4,620
6	3	$1,540	$4,620
7	3	$1,694	$5,082
8	3	$1,694	$5,082
9	3	$1,694	$5,082
10	3	$1,694	$5,082
11	3	$1,694	$5,082
12	3	$1,863	$5,590
13	3	$1,863	$5,590
14	3	$1,863	$5,590
15	3	$1,863	$5,590
16	3	$1,863	$5,590
17	3	$2,050	$6,149
18	3	$2,050	$6,149
19	3	$2,050	$6,149
20	3	$2,050	$6,149
21	3	$2,050	$6,149
22	3	$2,255	$6,764

[23] Data Source: Pivot Energy.

Year	MW	Payment per MW with Escalator	Annual County Revenue
23	3	$2,255	$6,764
24	3	$2,255	$6,764
25	3	$2,255	$6,764
CUMULATIVE TOTAL OVER 25 YEARS			**$138,500**
27	3	$2,480	$7,441
28	3	$2,480	$7,441
29	3	$2,480	$7,441
30	3	$2,480	$7,441
31	3	$2,480	$7,441
32	3	$2,728	$8,185
33	3	$2,728	$8,185
34	3	$2,728	$8,185
35	3	$2,728	$8,185
CUMULATIVE TOTAL OVER 35 YEARS			**$215,200**

**Totals may not sum due to rounding.*

Scenario 2: Total Fiscal Impact

Table 7 combines the results from the calculations depicted in Tables 3 and 6 to provide an estimate of the cumulative fiscal contribution that the proposed Orbit Road project would make to Isle of Wight County over its operational life. As these data indicate, that cumulative total is approximately $218,400 over 25 years and approximately $325,800 over 35 years.

Table 7: Estimated Cumulative County Revenue from the Proposed Orbit Road Project over 25 Years and 35 Years under Scenario 2

	Over 25 Years	Over 35 Years
County Real Estate Tax Revenue	$79,900	$110,600
County Revenue from Revenue Share Ordinance	$138,500	$215,200
TOTAL Cumulative Revenue	**$218,400**	**$325,800**

Current Agricultural Use

This section provides a benchmark for the previous estimates of the fiscal contribution that the proposed Orbit Road project would make to Isle of Wight County by estimating the fiscal contribution that the site makes to the county in its current agricultural use.

Economic Impact Assumptions

The analysis is based on the following assumptions:

- The proposed Orbit Road project would be situated on an approximate 28.84-acre tract of agricultural land of which 27 acres are used to produce cotton.[24]

Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 8, in its current agricultural use the proposed Orbit Road project site directly supports approximately: 1) < 1 job, 2) $7,300 in wages and benefits, and 3) $19,200 in economic output to Isle of Wight County.

Taking into account the economic ripple effects that direct impact generates, on average, the total annually supported impact on Isle of Wight County is approximately: 1) < 1 job, 2) $11,400 in wages and benefits, and 3) $29,600 in economic output.

Table 8: Total Estimated Annual Economic Impact of the Orbit Road Project Site on Isle of Wight County – Current Agricultural Use[25]

Economic Impact	Employment	Wages and Benefits	Output
1st Round Direct Economic Activity	< 1	$7,300	$19,200
2nd Round Indirect and Induced Economic Activity	< 1	$4,100	$10,400
Total Economic Activity	**< 1**	**$11,400**	**$29,600**

**Totals may not sum due to rounding.*

Fiscal Impact Assumptions

- The current assessment value of the affected acreage is approximately $37,900.[26]

[24] Data Source: Pivot Energy.
[25] Calculations based data from the U.S. Department of Agriculture and IMPLAN Group, LLC for Virginia.
[26] Data Source: Derived from Isle of Wight County's property card database.

Fiscal Impact

Table 9 details the estimated tax revenue that the proposed Orbit Road site generates for Isle of Wight County in its current agricultural use. As the data in Table 9 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $270 per year, for a cumulative total of approximately $6,730 over 25 years and approximately $9,420 over 35 years.

Table 9: Estimated County Revenue Generated by the Proposed Orbit Road Project Site over 25 Years and 35 Years from Real Estate Taxes – Current Agricultural Use

	Over 25 Years	Over 35 Years
Estimated Assessed Value of Property – Current Agricultural Use[27]	$37,900	$37,900
Isle of Wight County Real Estate Tax Rate[28]	0.0071	0.0071
Estimated Annual County Real Estate Tax – Current Agricultural Use	$270	$270
Total Cumulative Revenue over Operational Life	**$6,730**	**$9,420**

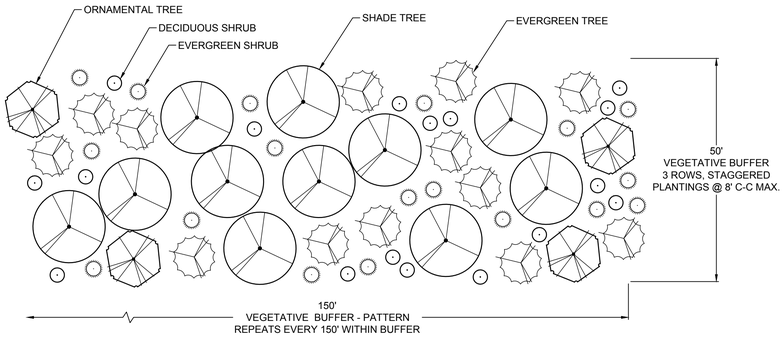
**Totals may not sum due to rounding.*

The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing that information. However, because these estimates attempt to foresee circumstances that have not yet occurred, it is not possible to provide any assurance that they will be representative of actual events. These estimates are intended to provide a general indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.

[27] Data Source: Derived from Isle of Wight County's property card database.
[28] Data Source: Isle of Wight County's Commissioner of Revenue's office.



KEY MAP
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | VIEW 1
NOT TO SCALE



EXISTING CONDITIONS | VIEW 1
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | ESTIMATED TIME OF PLANTING | VIEW 1
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | ESTIMATED 5 YEAR GROWTH | VIEW 1
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PROPOSED LANDSCAPE BUFFER | ESTIMATED 10 YEAR GROWTH | VIEW 1
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SCALE:

DOCUMENT PREPARED FOR:
ELK DEVELOPMENT, LLC
6865 DEERPATH ROAD, SUITE 330
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410-779-9377

LANDSCAPE PLAN
FOR
VAL035 Solar Energy System
18213 ORBIT ROAD, WINDSOR
NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT CO., VA

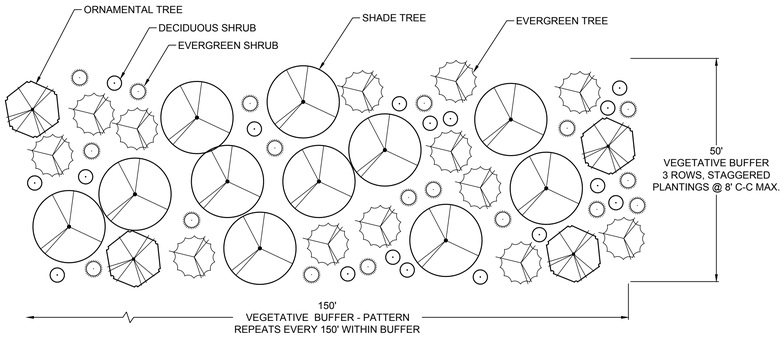
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FILE NAME	LD-LA-VA
DRAWN BY	TKM
CHECKED BY	JTP
SHEET NO	VA-1

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KEY MAP
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PROPOSED LANDSCAPE BUFFER | VIEW 2
NOT TO SCALE



EXISTING CONDITIONS | VIEW 2
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | ESTIMATED TIME OF PLANTING | VIEW 2
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | ESTIMATED 5 GROWTH | VIEW 2
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PROPOSED LANDSCAPE BUFFER | ESTIMATED 10 YEAR GROWTH | VIEW 2
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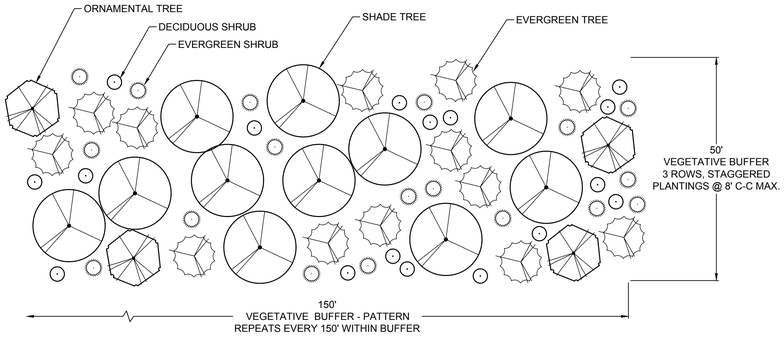
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KEY MAP
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PROPOSED LANDSCAPE BUFFER | VIEW 3
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EXISTING CONDITIONS | VIEW 3
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | ESTIMATED TIME OF PLANTING | VIEW 3
NOT TO SCALE



PROPOSED LANDSCAPE BUFFER | ESTIMATED 5 GROWTH | VIEW 3
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PROPOSED LANDSCAPE BUFFER | ESTIMATED 10 YEAR GROWTH | VIEW 3
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EASTERN RED CEDAR



GREEN GIANT ARBORVITAE



FLOWERING DOGWOOD



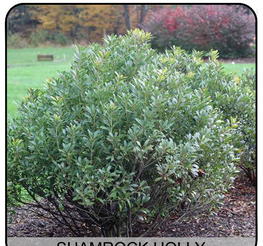
RED SUNSET RED MAPLE



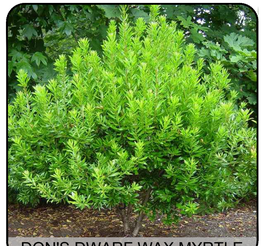
WINTERBERRY HOLLY



RED TWIG DOGWOOD



SHAMROCK HOLLY



DON'S DWARF WAX MYRTLE

PLANT PALETTE

DECIDUOUS TREES

QUERCUS PALUSTRIS (PIN OAK)
HEIGHT: 50-70 FT
SPREAD: 40-60 FT
GROWTH RATE: +1-2 FT/YEAR

ACER RUBRUM ' RED SUNSET'
HEIGHT: 40-50 FT
SPREAD: 30-40 FT
GROWTH RATE: + 2 FT/YEAR

EVERGREEN TREES

JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)
HEIGHT: 30-65 FT
SPREAD: 8-25 FT
GROWTH RATE: + 1-2 FT/YEAR

THUJA PLICATA ' GREEN GIANT"
HEIGHT: 40-60 FT
SPREAD: 12-15 FT
GROWTH RATE: + 2-3 FT/YEAR

ORNAMENTAL TREES

CORNUS FLORIDA (FLOWERING DOGWOOD)
HEIGHT: 15-30 FT
SPREAD: 15-30 FT
GROWTH RATE: + 1-2 FT/YEAR

CRATAEGUS VIRIDIS ' WINTER KING'
HEIGHT: 25-35 FT
SPREAD: 25-35 FT
GROWTH RATE: + 1-2 FT/YEAR

EVERGREEN SHRUBS

MYRICA CERIFERA ' DONS DWARF'
HEIGHT: 3-4 FT
SPREAD: 4-6 FT

ILEX GLABRA ' SHAMROCK'
HEIGHT: 3-4 FT
SPREAD: 3-4 FT

DECIDUOUS SHRUBS

CORNUS STOLONIFERA ' ARTIC FIRE'
HEIGHT: 3-5 FT
SPREAD: 3-5 FT
ILEX VERTICILLATA ' NANA'
HEIGHT: 3-12 FT
SPREAD: 3-12 FT

NOTE: TREES SHALL BE INSTALLED AT 6' - 8' HEIGHT MINIMUM. SHRUBS SHALL BE INSTALLED AT 24-30" HEIGHT MINIMUM. THE PROPOSED VEGETATION DEPICTED IN THIS EXHIBIT ARE FOR CONCEPT PURPOSES ONLY. FINAL PLANT SPECIES WILL BE DETERMINED WITH FINAL DESIGN.



PIN OAK



WINTER KING HAWTHORNE

SUBJECT TO FINAL ENGINEERING

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VAL035: WATER QUALITY IMPACT ASSESSMENT

Isle of Wight County, Virginia

Prepared by:

DAWOOD
ENGINEERS • PLANNERS • SURVEYORS
4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112

Prepared For:
Elk Development, LLC
6865 Deerpath Road, Suite 330
Elkridge, MD 21075

Revised June 2023

Summary

Dawood has completed a water quality impact assessment for the proposed VAL035 Solar Energy System Project (Project). The major water quality impact assessment was performed in conformance with Appendix B-1 Article 4, Section 4003 of the Isle of Wight County, Virginia Code. The assessment performed identifies the impacts of the proposed land development and disturbances on resources within and surrounding the Project area. The Site Plan included with the Conditional Use Permit application provides an overview of existing and proposed site characteristics and conditions.

1. Site Plan

A Site Plan is included in the Conditional Use Permit Application.

a. No tidal wetlands, nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow, tidal shores, water bodies with perennial flow; therefore, no Resource Protection Areas (RPAs) are located within the proposed Project Area. One RPA was identified and delineated for a palustrine emergent (PEM) wetland outside of the proposed Project area. The RPA boundary is denoted on the Existing Conditions Plan. As the Project is entirely located within the Chesapeake Bay watershed, the Project area is classified as a Resource Management Area.

b. As no RPAs are located within the project area, no encroachments into these zones are proposed.

c. While no RPAs are located within the proposed Project area, Best Management Practices (BMPs) have been and are proposed to be implemented to protect the Resource Management Area (RMA) in which the Project is located. These BMPs include: limiting the project area to prevent the need for clearing of trees, implementation of an invasive species management plan, proposed restoration following construction activities with native plant species, implementation of a VADEQ approved Erosion and Sedimentation Control Plan, Stormwater Management Plan, and Stormwater Pollution Prevention Plan and project siting to minimize and avoid, where possible, direct and potential indirect impacts to water resources and other habitat that may support threatened and/or endangered species.

d. Land use within the proposed Project area is entirely agricultural. Therefore, the only vegetation that exists within the Project area is actively managed row-crop (e.g., cotton, soybean) during the growing season and herbaceous cover-crop during the non-growing season. No trees, scrub-shrub, or herbaceous vegetation within an RPA is proposed to be removed or impacted by the Project.

e. A VADEQ approved Erosion and Sedimentation Control Plan will be implemented during Project construction. Conversion of vegetative cover from row-crop to perennial herbaceous cover through restoration of the proposed project area with native seed mixes will reduce the risk of long-term erosion and sediment run-off.

2. Hydrogeological Assessment

a. Hydrogeological Description

Topography

Site elevations in the project area range from approximately 75 to 80 feet above mean sea level. Topography within the proposed project and on surrounding land is relatively level with a majority of the site ranging from 0 to 4% slopes. The northern segment of the proposed Project area is gently sloping to the northeast and the southern segment gently sloping toward the southeast.

Soils

A review of the project area on the Natural Resources Conservation Service's Web Soil Survey denoted that four soil units are located within the proposed project area: Slagle fine sandy loam (18A and 18B), and Yemassee fine sandy loam (23). Soil series unit 18B is classified as potentially highly erodible land (PHEL) in Isle of Wight County. Soil series units 18A and 23 are classified as not highly erodible land (NHEL) in Isle of Wight County. More detailed information has been included in the table below. Soil series unit boundaries are shown on the attached Existing Condition Site Plan.

Table 1. Summary of Site Soils

Map Unit Symbol	Map Unit Name	Depth to Lithic Bedrock (cm)[1]	Depth of Water Table (cm)	Flooding Frequency Class	Ponding Frequency Class
18A	Slagle fine sandy loam, 0 to 2 percent slopes	>200	69	None	None
18B	Slagle fine sandy loam, 2 to 6 percent slopes	>200	76	None	None
23	Yemassee fine sandy loam	>200	38	None	None

[1] Depth to Lithic Bedrock was determined by using the "Dominant Component" Aggregation Method, which returns the attribute value associated with the component with the highest percent composition in the map unit.

Hydrology

Surface water on the site is conveyed to Great Swamp and Nuby Run, tributaries to Lake Burnt Mills. Lake Burnt Mills and tributaries thereto are classified as Class III waters with a Special Standard of PWS per Title 9, Agency 25, Chapter 260 of the VA Code. Two palustrine emergent (PEM) wetlands are located within the proposed Project area. No other surface water or groundwater resources were identified within the proposed project area. One ephemeral watercourse is located along the northeastern limit of the Project. Additionally, one PEM wetland is located approximately 200-feet northeast of the proposed Project.

Geology

The Project area is underlain by the Windsor Formation of the Tertiary-Quaternary period. This formation is comprised by gray and yellowish- to reddish-brown sand, gravel, silt, and clay. This unit constitutes surficial deposits of extensive plain (altitude 85-95 feet.) seaward of Surry scarp and of coeval, fluvial-estuarine terraces west of scarp. The fining upward sequence beneath plain consists of a basal pebbly sand grading upward into cross-bedded, quartzose sand and massive, clayey silt and silty

clay; lower and upper parts of sequence were deposited, respectively, in shallow-marine or open-bay and restricted-bay or lagoonal environments. In terraces west of Surry scarp, fluvial-estuarine deposits comprise muddy, coarse, trough cross-bedded sand and gravel grading upward to sandy silt and clay. Thickness is 0 to 40 feet. A review of the Virginia DCR's Natural Heritage Data Explorer indicates that the proposed project is not located within karst bedrock.

b. Hydrogeological Impacts

Topography

Impacts to site topography will result from grading activities associated with the proposed Project. Changes to topography will, overall, be relatively minor and not result in significant changes to that which exists currently. Overall, no adverse impacts to the site surface drainage are proposed nor anticipated.

Soils

Topsoil will be stripped, stockpiled, and used for restoration in areas where roads, pads, and utility trenching are proposed. These management practices will prevent the compaction of topsoil in construction areas where the threat exists and provide for suitable material to reestablish vegetation during the restoration phase. In areas where pads, roads, or utility trenching is proposed, subsoils will be compacted to reduce the risk of future settling and need for additional maintenance activities that may result in additional disturbance. Areas where compaction will be performed are limited within the overall Project area. Piles/posts for the PV modules will be driven to reduce the impacts to soils. Timber mats will be utilized in wetland areas to reduce the disturbance and compaction of wetland soils, where practical. Overall, impacts to soil are not anticipated to result in adverse effects.

Hydrology

As noted, site surface drainage will be maintained and consistent with pre-construction pathways. A VADEQ approved Erosion and Sedimentation Control Plan, Stormwater Pollution Prevention Plan and Stormwater Management Plan will be implemented by the project to ensure maintenance of water quality and quantity are maintained during and following the proposed Project.

Impacts to two PEM wetlands are proposed by the Project. Impacts include piles for the mounted PV modules and trenching for installation of electric transmission wires. Impacts will be minimized to the extent possible by driving steel piles into the native soils. No additional fill materials are proposed within the delineated wetland areas. Trenching will be performed through the wetland resources to install the transmission wires needed to support the project's intended purpose. As noted, topsoil stripping will be performed in these areas and stockpiled for use during restoration activities. During restoration, wetland areas will be restored to their pre-construction grades to reestablish hydrological functions. No impacts to waterbodies outside of the Project area are proposed. As such, no adverse impacts to hydrology within the Project area or to surrounding areas is anticipated.

Geology

Piles will be driven into bedrock to ensure solid foundation for the mounted PV modules. Otherwise, no disturbance or impacts to the geology underlaying the Project area is proposed. No blasting is proposed for the Project. Therefore, no adverse impacts to the geology underlaying the Project and surrounding area are anticipated.

c. Disturbances

i. Two palustrine emergent (PEM) wetlands are proposed to be disturbed by the Project. Both wetland areas are currently located within an actively managed agricultural field and therefore are disturbed by both soil tilling and vegetation management practices. As noted, the Project will strip and stockpile topsoil within these resources to be utilized for restoration to pre-construction grades. Steel piles will be driven, and no fill materials are proposed to be utilized within the wetlands. Restoration activities, including seeding with native seed mixes, will help to restore wetland functions. Overall, land use associated with the Project is expected to improve such functions as annual soil disturbances will not occur and vegetative management will be limited to preventing the growth of woody species. As such, native wetland flora will have the opportunity to proliferate within the resources. Soil disturbance within wetland resources will also be minimized with the use of timber mats during construction activities, where practical, to reduce the risk of both topsoil and subsoil compaction.

   Alternative project alignments were considered to avoid wetland impacts; however, there is no alignment that fulfills the project's intended purpose without impacting wetland resources. The wetlands proposed to be impacted are isolated wetlands that are consistently disturbed by agricultural activities. As such, both wetlands provide little to no functional benefits to the local and regional ecosystems. Proposed impacts were minimized to the extent practicable, and erosion and sediment controls will be utilized during the construction period to further mitigate for potential impacts. Additionally, restoration of the resources following construction will provide a means to reestablish a native vegetative community.

   Furthermore, siting of the proposed project within the agricultural field provided means to avoid tree-clearing, which would have greater environmental impact to the local ecosystem. Efforts were made to lease nearby and adjoining lands to avoid potential wetland impacts; however, those lands were already leased by other solar developers and therefore unavailable for the proposed project.

ii. Surface drainage from the site will be maintained both during and following construction consistent with that which exists currently within the Project area. A VADEQ approved Erosion and Sedimentation Control Plan, Stormwater Pollution Prevention Plan, and Stormwater Management Plan will be implemented to ensure no adverse effects to the quantity and quality of surface runoff from the site. Therefore, no adverse impacts to the supply of water to wetlands, streams, lakes, rivers, or other waterbodies within or downgradient of the Project area are proposed or anticipated.

iii. As noted, disturbed wetland areas will be restored to their pre-construction grades to ensure the maintenance of their hydrological characteristics. Additionally, cessation of soil disturbing activities associated with normal agricultural practices will allow for a consistent hydrological regime within both resources following the completion of construction and restoration activities.

iv. No off-site fill material is proposed to be utilized by the Project and no fill materials are proposed for use within waterbodies.

v. No dredging is proposed by the Project.

vi. Pollutant loads in runoff based on existing and proposed land uses were estimated for total Phosphorus and total Nitrogen. The table below documents estimated pollutant loads in runoff from the Project area based on pre-development and post-development land use conditions:

Development Stage	Total Phosphorus (lb/yr)	Total Nitrogen (lb/yr)
Pre-Construction	13.34	95.41
Post Construction	14.06	100.58

vii. The Project proposes a total increase in impervious surfaces of 0.4%. Post-construction impervious surfaces include a gravel road and concrete pads.

viii. No forest, woodland, or scrub-shrub vegetative communities will be cleared for the Project. Therefore, total clearing for the Project is 0%.

ix. The Project is proposed to be completed in one phase. Construction is expected to begin in June 2024 and be completed in November 2024.

x. The following permits/approvals are required from federal, state, or local agencies for the proposed Project:

- USACE/VADEQ/VMRC/Local Wetlands Board
  - Standard Joint Permit
- VADEQ
  - VPDES (VAR10) for Land Disturbance > 1-acre
  - Solar Permit-by-Rule (PBR) – *de minimis*
- VDOT
  - Land Use Permit (LUP-UT) for Utility Installation
- Isle of Wight
  - Conditional Land Use Permit
  - Site Development Plan

d. Mitigation Measures

i. Disturbance mitigation/minimization measures proposed to be implemented by the Project include: protective fencing along resource boundaries outside of the Project area to prevent unauthorized access or disturbance to such resources, use of timber mats in wetland areas to minimize impacts to wetland soils, perimeter controls to reduce sediment pollution from the project area, and stormwater management BMPs which may include grass filter strips, grass channels, dry swales, bioretention, infiltration practices, and/or extended detention.

ii. A stormwater management system for nonpoint source quality and quantity control in compliance with Chapter 14A of Isle of Wight County's Stormwater Management Ordinance will be implemented by the Project.

3. Vegetation Assessment

a. Woody Plant Materials

Forested areas surrounding the proposed Project area are denoted on the attached Site Plan. Trees greater than 8-inch diameter at breast height (DBH) are located within these surrounding woodlands. No trees or woody vegetation is located within the proposed Project area.

b. Impacts to Vegetation

i. All areas proposed to be disturbed are covered by herbaceous vegetation. Herbaceous vegetation (row-crop or cover crop) will be cleared or disturbed during construction activities. All such clearing/disturbance will occur within the Project's Limit of Construction.

ii. No tree or woody species clearing, or removal is proposed by the Project.

iii. Herbaceous vegetation proposed to be removed will be the crop present within the agricultural field. This will be entirely dependent upon field conditions and the landowner's planting schedule. It is anticipated, based on the proposed construction period, that the vegetation to be removed will either be a cover crop (e.g., clover, ryegrass, oats) or planted row-crop (e.g., corn, soybean, cotton).

c. Mitigation Measures

i. No trees or woody vegetation is proposed to be removed or cleared for the Project. Therefore, replanting is not considered applicable. A tree screening will be utilized by the project.

ii. Disturbed areas are to be seeded with low maintenance native species ground cover meeting the requirements of the Virginia Erosion and Sediment Control Handbook. Buffer yards to be provided in accordance with the County Zoning Ordinance, existing vegetation in the buffer yards to be supplemented as needed.

iii. No trees are located within the Project area and tree clearing is not proposed; therefore, any significant trees in vicinity to the Project area are not proposed be disturbed. Vegetation present within the project area is herbaceous and comprised by agricultural species; therefore, no significant species are anticipated to be disturbed. Restoration of the Project area will include planting with native seed species to promote the reestablishment of herbaceous vegetation within the Project area to assist with reducing runoff rates and pollutant runoff loads.

iv. Native species seed mixes in conformance with Virginia Erosion and Sediment Control Handbook will be utilized by the Project. Seed mixes will be included on the VADEQ approved Erosion and Sedimentation Control Plan.

4. Shoreline and Bank Stabilization Projects

The proposed Project does not propose shoreline or bank stabilization.

5. Construction Phasing

The Project is proposed to be completed in a single phase.

VAL035: THREATENED AND ENDANGERED SPECIES ASSESSMENT

Isle of Wight County, Virginia

Prepared by:

DAWOOD
ENGINEERS ▸ PLANNERS ▸ SURVEYORS

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Prepared For:

Elk Development, LLC
6865 Deerpath Road, Suite 330
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Revised June 2023

Summary

Dawood has performed desktop surveys, reviewed publicly available maps and information, and coordinated with state and federal agencies to determine if the proposed VAL035 Solar Facility Project has the potential to impact threatened or endangered species. A review for threatened and endangered species within or potentially impacted by the project area was coordinated with United States Fish and Wildlife Service (USFWS) via the IPaC system, with Virginia Department of Conservation and Recreation (DCR) via an Information Services Order Form, with Virginia Department of Wildlife Resources (DWR) via a VaFWIS system review and email coordination, and with the National Oceanic and Atmospheric Administration (NOAA) via email. No impacts to threatened and/or endangered species are proposed or anticipated as a result of the project. A summary of identified threatened and endangered species within the proposed project area and agency coordination is below.

USFWS

The USFWS species list generated by the IPaC system noted one endangered species (Northern Long-eared Bat) and one candidate species (Monarch Butterfly) potentially within the proposed project area. No response from the Service was received in the 30-day period determined by USFWS; therefore, the conclusions of the Consistency Letter are deemed appropriate.

Northern Long-eared Bat

A "may affect" determination was issued by USFWS for the Northern Long-eared Bat; however, the USFWS Consistency Letter states that any take that would occur is not prohibited under ESA Section 4(d). Neither tree-clearing or disturbance of caves is proposed by the project. Therefore, no take of this species is proposed nor anticipated as a result of the project. Additionally, a review of the NLEB Winter Habitat and Roost Trees mapper maintained by VA Department of Game and Inland Fisheries does not denote any hibernaculum or known maternity roost trees within or in proximity to the proposed project area.

Monarch Butterfly

The proposed project area is an actively managed agricultural field and lacks potential habitat (e.g., milkweed and flowering plants) for the species. Therefore, no impacts to this species are proposed or anticipated. Additionally, enhancement of the proposed project area with native pollinator plant species will improve the potential to support this species.

Migratory Birds

Migratory birds are not anticipated to be impacted by the proposed project. General measures and habitat protection will be implemented by the proposed project in accordance with USFWS Nationwide Standard Conservation Measures to reduce impacts to migratory bird species. Such measures include, but are not limited to: no proposed tree-clearing, proper management of waste, limiting project impacts to already disturbed lands, implementing an Erosion and Sedimentation Control Plan, and restoration with native plant species.

Virginia Department of Wildlife Resources

A 2-mile radius search via the VaFWIS system was used to develop an Initial Project Assessment (IPA) Report. Per the IPA there are no confirmed federal threatened, endangered, candidate or state threatened or endangered species within the proposed project area. The IPA identified three Colonial Water Bird Colonies within the 2-mile radius. Coordination with Virginia DWR was performed to ensure no potential impacts to threatened and endangered species were anticipated

as a result of the proposed project. The response email from DWR, dated March 17, 2023, indicates there are no anticipated adverse impacts to species under their jurisdiction from the proposed work.

Colonial Water Bird Survey

Three colonial water bird surveys for three colonies (Southside, Smithfield, Isle of Wight; Southside, Windsor, Isle of Wight; and Great Swamp) are documented within 2-miles of the proposed project area. In accordance with the DWR's Solar Energy Facility Construction and Operation Recommendations coordination with USFWS and DWR should occur if the proposed project is located within 0.5-mile of the colony. The nearest colony is the Southside, Smithfield, Isle of Wight colony, which according to The Center for Conservation Biology's CCB Mapping Portal is located approximately 0.9-mile southeast of the proposed project area. As such, the proposed project area is located outside of the 0.5-mile buffer zone for all documented colonies. Mapped locations for colonies are included in Enclosure B. In accordance with the recommendation, no disturbance to natural forested habitat and enhancement of existing vegetation within the proposed project area via restoration with native plant species is proposed.

Virginia Department of Conservation and Recreation

Consultation with the Virginia Department of Conservation and Recreation (DCR) was performed via their Information Services Order Form to determine if the proposed project had the potential to impact species under their jurisdiction. Per the DCR response letter, dated 03/10/2023, no impacts to species under their jurisdiction are anticipated as a result of the proposed project. DCR does recommend the development of an invasive species management plan for the project and planting of native species following construction activities. Such activities will be included for the proposed project to maximize benefits to native pollinators. The DCR response letter is included in Enclosure C.

NOAA

Project details were provided to NOAA via email. NOAA stated that although four species of sea turtles, shortnose sturgeon, and Atlantic sturgeon originating from five Distinct Population Segments (DPS) are known to occur in the Chesapeake Bay and its rivers and tributaries, direct and/or indirect impacts to these species are not anticipated. The email response from NOAA's Brian D Hopper is included as Enclosure D.

Coastal Avian Protection Zone (CAPZ)

The proposed VAL035 project is not located within a Coastal Avian Protection Zone (CAPZ). Therefore, no impacts to protected species within a CAPZ are anticipated as a result of the proposed project.

Enclosure A: USFWS - IPaC Species List & Consistency Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project code: 2023-0042996
Project Name: VAL035

February 08, 2023

Subject: Consistency letter for the 'VAL035' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Jacob Yealy:

The U.S. Fish and Wildlife Service (Service) received on February 08, 2023 your effects determination for the 'VAL035' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will

first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

VAL035

2. Description

The following description was provided for the project 'VAL035':

> Construction of a solar photovoltaic energy system and associated site improvements including solar panels, equipment, cables, interconnection to the existing power lines, and access road.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.88926415,-76.69480106979492,14z



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/media/nleb-roost-tree-and-hibernacula-state-specific-data-links-0.

   Yes

4. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

5. Will the action involve Tree Removal?

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type ‘0’ in questions 1-3.

1. Estimated total acres of forest conversion:

0

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type ‘0’ in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type ‘0’ in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type ‘0’ in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

IPaC User Contact Information

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
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Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project Code: 2023-0042996
Project Name: VAL035

February 08, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

Project Summary

Project Code: 2023-0042996
Project Name: VAL035
Project Type: Power Gen - Solar
Project Description: Construction of a solar photovoltaic energy system and associated site improvements including solar panels, equipment, cables, interconnection to the existing power lines, and access road.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.88926415,-76.69480106979492,14z



Counties: Isle of Wight County, Virginia

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20

NAME	BREEDING SEASON
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

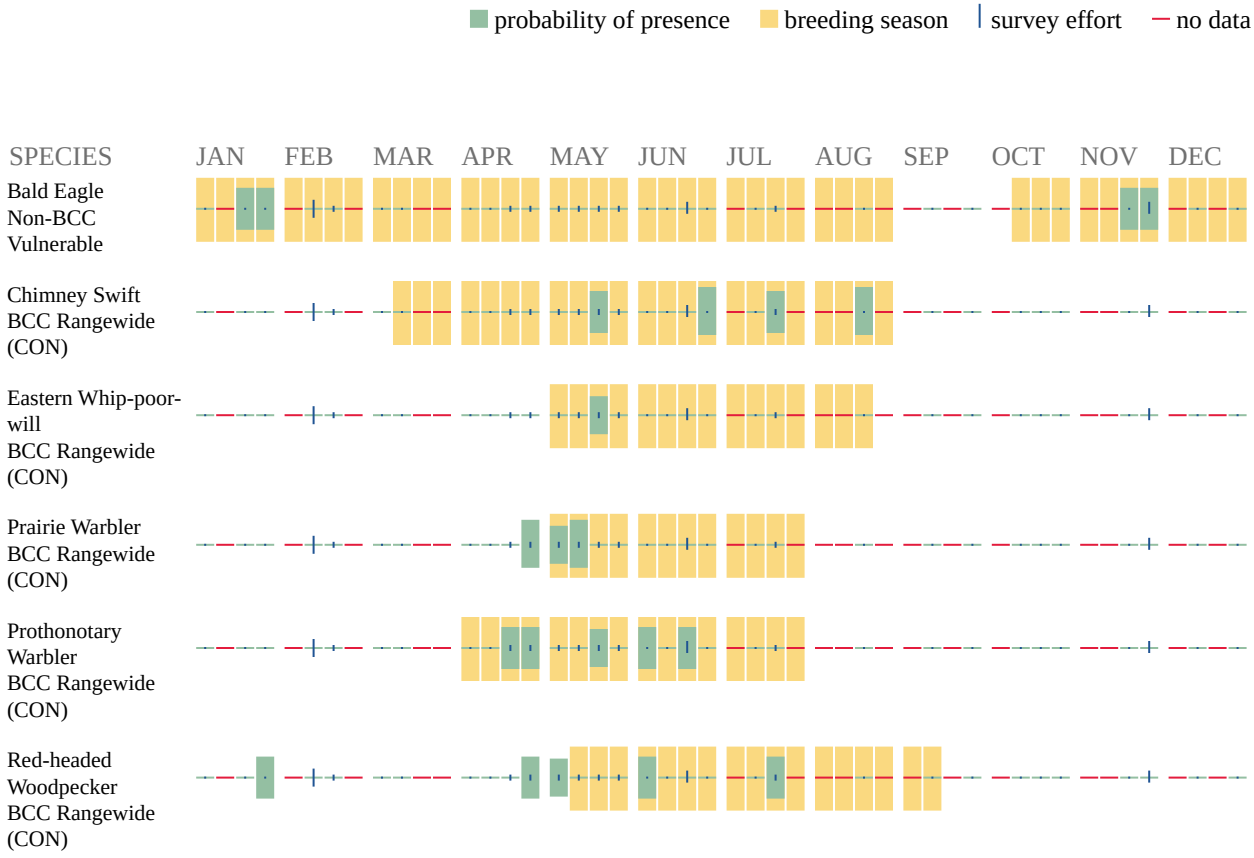
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

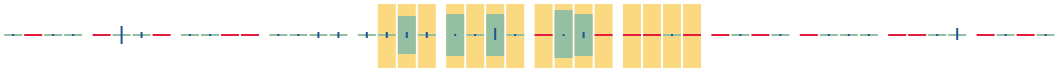
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

IPaC User Contact Information

Agency:	Dawood Engineering, Inc.
Name:	Jacob Yealy
Address:	4250 Crums Mill Road
Address Line 2:	Suite 301
City:	Harrisburg
State:	PA
Zip:	17112
Email	jacob.yealy@dawood.net
Phone:	7179651521

Enclosure B: VaFWIS Initial Project Assessment, CCB Map & VA DWR Response

VaFWIS Initial Project Assessment Report Compiled on 3/15/2023, 8:28:09 AM

Help

Known or likely to occur within a **2 mile radius around point 36.8886520 -76.6943938** in **093 Isle of Wight County, VA**

View Map of Site Location

479 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 29) (29 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
030071	FTST	Ia	Turtle, loggerhead sea	Caretta caretta		BOVA
040144	FTST	Ia	Knot, red	Calidris canutus rufa		BOVA
040110	FTSE	Ia	Rail, eastern black	Laterallus jamaicensis jamaicensis		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
030064	SE	Ia	Turtle, eastern chicken	Deirochelys reticularia reticularia		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050034	SE	Ia	Bat, Rafinesque's eastern big-eared	Corynorhinus rafinesquii macrotis		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
020052	SE	IIa	Salamander, eastern tiger	Ambystoma tigrinum		BOVA
030013	SE	IIa	Rattlesnake, canebrake	Crotalus horridus		Habitat
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
020044	ST	IIa	Salamander, Mabee's	Ambystoma mabeei		BOVA,Habitat
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030067	CC	IIa	Terrapin, northern diamond-backed	Malaclemys terrapin terrapin		BOVA,Habitat
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
070131		Ic	Isopod, Phreatic	Caecidotea phreatica		BOVA
020063		IIa	Toad, oak	Anaxyrus quercicus		BOVA,Habitat
020002		IIa	Treefrog, barking	Hyla gratiosa		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040033		IIa	Egret, snowy	Egretta thula		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040181		IIa	Tern, common	Sterna hirundo		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA
040304		IIc	Warbler, Swainson's	Limnothlypis swainsonii		BOVA

To view **All 479 species** View 479

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need;
III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;
b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Colonial Water Bird Survey (3 records)

View Map of All Query Results
Colonial Water Bird Survey

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE*	Highest Tier**	
Southside, Smithfield, Isle of Wight	1	May 17 2013	1			Yes
Southside, Windsor, Isle of Wight	1	May 17 2013	1			Yes
Great Swamp	1	Apr 28 2003	1			Yes

Displayed 3 Colonial Water Bird Survey

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

Habitat Predicted for Terrestrial WAP Tier I & II Species (4 Species)

View Map of Combined Terrestrial Habitat Predicted for 4 WAP Tier I & II Species Listed Below

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
030013	SE	IIa	Rattlesnake, canebrake	Crotalus horridus	Yes
020044	ST	IIa	Salamander, Mabee's	Ambystoma mabeei	Yes
030067	CC	IIa	Terrapin, northern diamond-backed	Malaclemys terrapin terrapin	Yes
020063		IIa	Toad, oak	Anaxyrus quercicus	Yes

Public Holdings:

N/A

Compiled on 3/15/2023, 8:28:09 AM I1466871.0 report=IPA searchType= R dist= 3218 poi= 36.8886520 -76.6943938

PixelSize=64; Anadromous=0.019056; BECAR=0.017559; Bats=0.018322; Buffer=0.062259; County=0.05384; Impediments=0.018739; Init=0.095089; PublicLands=0.02062; SppObs=0.255327; TEWaters=0.023823; TierReaches=0.036824; TierTerrestrial=0.111719; Total=0.873508; Tracking_BOVA=0.176525; Trout=0.021967

Colonial Water Bird Survey Southside, Smithfield, Isle of Wight

36,53,19.1 -76,41,39.8 is **the Search Point**

Display at center	**Item Location** is not at map center

Show Position Rings
Yes No
1 mile and 1/4 mile at the **Search Point**

Show Search Area
Yes No
2 Search distance miles radius

Search Point is at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Search, Observation, Position

Map Overlay Legend

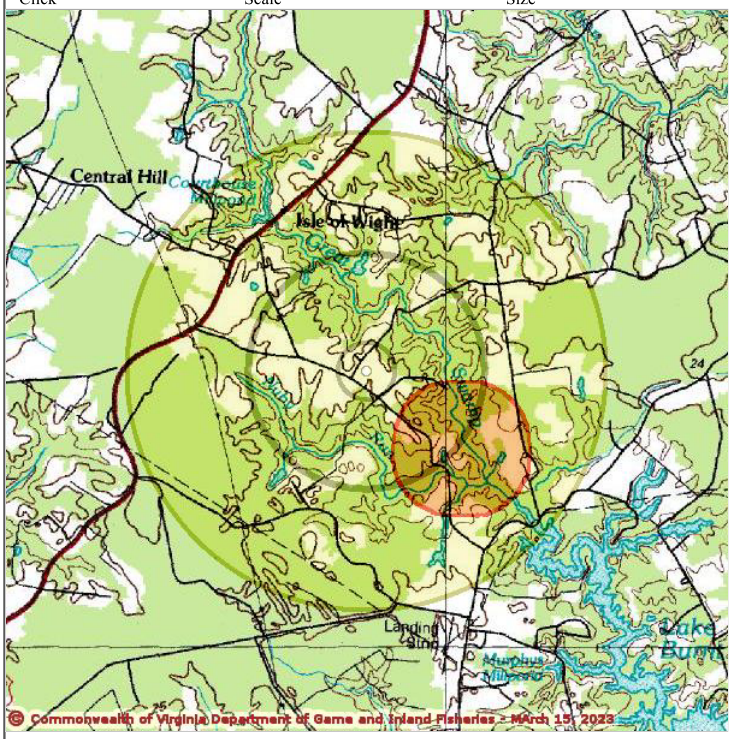
Position Rings 1 mile and 1/4 mile at the Search Point

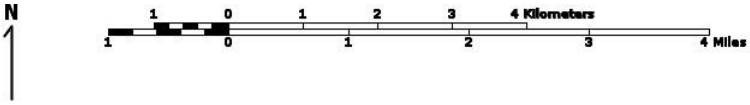
2 mile radius Search Area

Data Observation Site

back | Refresh Browser Page

Map Click: Pan Id M | Map Scale: In Zoom Out | Screen Size: Small Size Big | Help





Point of Search 36,53,19.1 -76,41,39.8
Map Location 36,53,19.1 -76,41,39.8

Select **Coordinate System:**
- (•) Degrees,Minutes,Seconds Latitude - Longitude
- ( ) Decimal Degrees Latitude - Longitude
- ( ) Meters UTM NAD83 East North Zone
- ( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 344216 and top 4088661. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+- are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2023-03-15 08:32:09 (qa/qc March 21, 2016 12:20 - tn=1466871.0 dist=3218 I)
$poi=36.8886520 -76.6943938$query=select xy.x,xy.y,xy.offset_x,xy.offset_y, cc.High_TE from vafwis_tables.dbo.vcvSppObs_XY xy join vafwis_tables.dbo.cvSppObs a on a.obsID = xy.obsID and case when CHARINDEX('Colony_Name=',a.Comments)>0 then SUBSTRING(a.Comments,CHARINDEX('Colony_Name=',a.Comments)+12, case when CHARINDEX(';',a.Comments,CHARINDEX('Colony_Name=',a.Comments)) > 12 then CHARINDEX(';',a.Comments,CHARINDEX('Colony_Name=',a.Comments)) - CHARINDEX('Colony_Name=',a.Comments)-12 else LEN(a.Comments)-CHARINDEX('Colony_Name=',a.Comments)-11 end) when CHARINDEX('Colony Name: ',a.Comments)>0 then SUBSTRING(a.Comments,CHARINDEX('Colony Name: ',a.Comments)+13, case when CHARINDEX(';',a.Comments,CHARINDEX('Colony Name:',a.Comments)) > 13 then CHARINDEX(';',a.Comments,CHARINDEX('Colony Name:',a.Comments)) -CHARINDEX('Colony Name:',a.Comments)-13 else LEN(a.Comments)-CHARINDEX('Colony Name:',a.Comments)-12 end) when SUBSTRING(a.Comments,1,13) = 'Colony Name =' then SUBSTRING(a.Comments,15,LEN(a.Comments)-14) else a.LocDescrip end = 'Southside, Smithfield, Isle of Wight' join vafwis_tables.dbo.cvSppObs_cc cc on cc.obsID = xy.obsID join vafwis_tables.dbo.sourceDB_Code sc on sc.sourceDB = a.sourceDB and sc.t_sourceDB like '%Colonial%'

Colonial Water Bird Survey Southside, Windsor, Isle of Wight

36,53,19.1 -76,41,39.8 is **the Search Point**

Display	**Item Location** is
at center	not at map center

Show Position Rings
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

Show Search Area
(•) Yes ( ) No
2 Search distance miles radius

Search Point is at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Position, Search, Observation

Map Overlay Legend

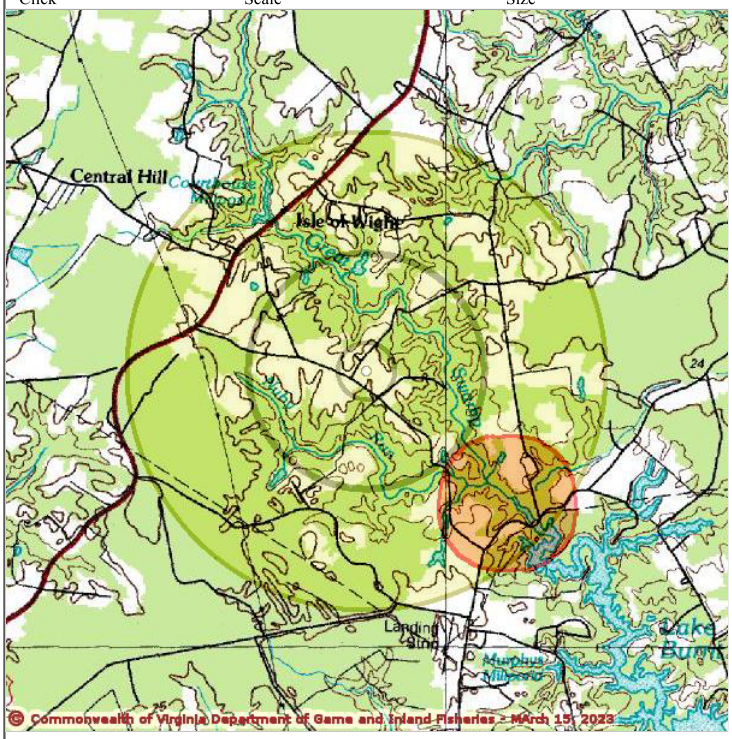
Position Rings 1 mile and 1/4 mile at the Search Point

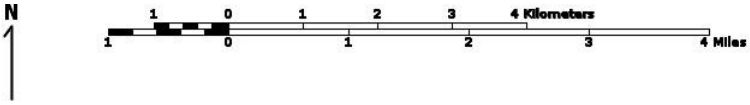
2 mile radius Search Area

Data Observation Site

Refresh Browser Page

Map Click Pan Id M Map Scale In Zoom Out Screen Size Small Size Big Help





Point of Search 36,53,19.1 -76,41,39.8
Map Location 36,53,19.1 -76,41,39.8

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 344216 and top 4088661. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+- are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2023-03-15 08:33:42 (qa/qc March 21, 2016 12:20 - tn=1466871.0 dist=3218 I)
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Colonial Water Bird Survey Great Swamp

36,53,19.1 -76,41,39.8
is **the Search Point**

Display at center	**Item Location** is not at map center

Show Position Rings
(•) Yes ( ) No
1 mile and 1/4 mile at the **Search Point**

Show Search Area
(•) Yes ( ) No
2 Search distance miles radius

Search Point is at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Position, Search, Observation

Map Overlay Legend

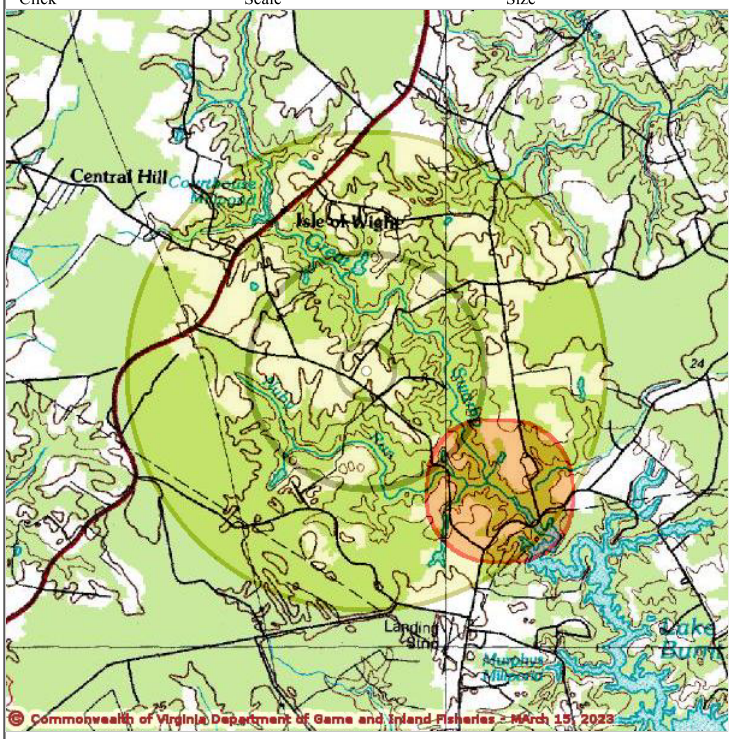
Position Rings 1 mile and 1/4 mile at the Search Point

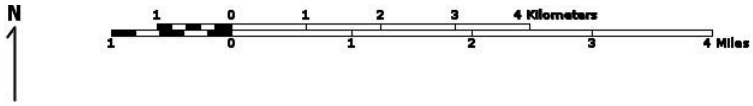
2 mile radius Search Area

Data Observation Site

Refresh Browser Page

Map Click Pan Id M Map Scale In Zoom Out Screen Size Small Size Big Help





Point of Search 36,53,19.1 -76,41,39.8
Map Location 36,53,19.1 -76,41,39.8

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
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( ) Meters UTM NAD83 East North Zone
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Base Map source: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

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map assembled 2023-03-15 08:34:08 (qa/qc March 21, 2016 12:20 - tn=1466871.0 dist=3218 I)
$poi=36.8886520 -76.6943938$query=select xy.x,xy.y,xy.offset_x,xy.offset_y, cc.High_TE from vafwis_tables.dbo.vcvSppObs_XY xy join vafwis_tables.dbo.cvSppObs a on a.obsID = xy.obsID and case when CHARINDEX('Colony_Name=',a.Comments)>0 then SUBSTRING(a.Comments,CHARINDEX('Colony_Name=',a.Comments)+12, case when CHARINDEX(';',a.Comments,CHARINDEX('Colony_Name=',a.Comments)) > 12 then CHARINDEX(';',a.Comments,CHARINDEX('Colony_Name=',a.Comments)) - CHARINDEX('Colony_Name=',a.Comments)-12 else LEN(a.Comments)-CHARINDEX('Colony_Name=',a.Comments)-11 end) when CHARINDEX('Colony Name: ',a.Comments)>0 then SUBSTRING(a.Comments,CHARINDEX('Colony Name: ',a.Comments)+13, case when CHARINDEX(';',a.Comments,CHARINDEX('Colony Name:',a.Comments)) > 13 then CHARINDEX(';',a.Comments,CHARINDEX('Colony Name:',a.Comments)) -CHARINDEX('Colony Name:',a.Comments)-13 else LEN(a.Comments)-CHARINDEX('Colony Name:',a.Comments)-12 end) when SUBSTRING(a.Comments,1,13) = 'Colony Name =' then SUBSTRING(a.Comments,15,LEN(a.Comments)-14) else a.LocDescrip end = 'Great Swamp' join vafwis_tables.dbo.cvSppObs_cc cc on cc.obsID = xy.obsID join vafwis_tables.dbo.sourceDB_Code sc on sc.sourceDB = a.sourceDB and sc.t_sourceDB like '%Colonial%'

CCB Mapping Portal



Layers: Colonial Waterbirds 2013

Map Center [longitude, latitude]: [-76.69186592102051, 36.88984963563157]

Map Link:
https://ccbbirds.org/maps/#layer=Colonial+Waterbirds+2013&zoom=15&lat=36.88984963563157&lng=-76.6918
6592102051&legend=legend_tab_88b838c8-e51a-11e4-b5d2-0e0c41326911&base=World+Imagery+%28ESRI%29

Report Generated On: 03/15/2023

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the Data Use Agreement to ensure compliance with our data use policies. For additional data access questions, view our Data Distribution Policy, or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Jacob Yealy

From: Martin, Amy (DWR) <Amy.Martin@dwr.virginia.gov>
Sent: Friday, March 17, 2023 11:46 AM
To: Jacob Yealy
Subject: ESSLog# 42854_VAL035 Solar_DWR_AEM20230317

Categories: Filed by Newforma

ATTENTION: This e-mail is from outside the organization. DO NOT click links or open attachments unless you confirm the incoming address of the sender.

Mr. Yealy,
We have reviewed the subject project that proposes to construct a solar facility in Isle of Wight County. We do not currently document any listed wildlife or designated resources under our jurisdiction from the project area. Therefore, we do not anticipate adverse impacts upon such species or resources to result from the proposed work.

We document colonial waterbird colonies containing great blue herons from the project area, near the headwaters of Lake Burnt Mills. We generally recommend a time of year restriction on construction activities located within 0.5 mile of a colony from February 15 through July 31 of any year. We also recommend that a 500-ft naturally vegetated, undisturbed buffer be left on the colony to ensure habitat suitability into the future. If any colonial waterbird colonies are identified on site, we recommend additional coordination with us to ensure its protection.

To further minimize impacts upon wildlife, we recommend review of and adherence to the solar facility development, operation, and fencing recommendations included within the document found here: https://dwr.virginia.gov/wp-content/uploads/media/Solar-Energy-Facility-Guidance.pdf

Thank you, Amy

Amy Martin
(she/her/hers)
Manager, Wildlife Information and Environmental Services
P 804.481.5296
Virginia Department of Wildlife Resources
CONSERVE. CONNECT. PROTECT.
A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228-0778
www.dwr.virginia.gov

_*

Jacob Yealy

From: Martin, Amy (DWR) <Amy.Martin@dwr.virginia.gov>
Sent: Monday, June 5, 2023 12:20 PM
To: Jacob Yealy
Subject: RE: ESSLog# 42854_VAL035 Solar_DWR_AEM20230317

Categories: Filed by Newforma

ATTENTION: This e-mail is from outside the organization. DO NOT click links or open attachments unless you confirm the incoming address of the sender.

Jacob,
Yes, that's correct.

Amy

Amy Martin
(she/her/hers)
Manager, Wildlife Information and Environmental Services
P 804.481.5296
Virginia Department of Wildlife Resources
CONSERVE. CONNECT. PROTECT.
A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228-0778
www.dwr.virginia.gov

From: Jacob Yealy <Jacob.Yealy@dawood.net>
Sent: Friday, June 2, 2023 10:30 AM
To: Martin, Amy (DWR) <Amy.Martin@dwr.virginia.gov>
Subject: RE: ESSLog# 42854_VAL035 Solar_DWR_AEM20230317

Good morning, Amy,

We received a comment during our project's county review regarding the Colonial Waterbird Colonies. I want to confirm that I did not misinterpret your response below regarding the potential to impact species.

Based on a review of the IPA & CCB Mapping portals (documents attached) our project appears to be outside the 0.5-mile buffer for the colonies mapped during the 2013 surveys. Based on IPA & CCB, it appears no new colonies were mapped in 2018.

Can you please confirm that the time of year restriction is not applicable to the project area (roughly shown as the pink polygon on the .png attached)? I interpreted your statement saying, if we were to discover a colonial waterbird colony within that 0.5-mile range, then the seasonal restriction and natural vegetation buffer would then apply.

Thanks,

Jacob Yealy
Ecologist
Dawood Engineering, Inc.
Jacob.Yealy@dawood.net

Office: 717-732-8576
Mobile: 717-965-1521

From: Martin, Amy (DWR) <Amy.Martin@dwr.virginia.gov>
Sent: Friday, March 17, 2023 11:46 AM
To: Jacob Yealy <Jacob.Yealy@dawood.net>
Subject: ESSLog# 42854_VAL035 Solar_DWR_AEM20230317

ATTENTION: This e-mail is from outside the organization. DO NOT click links or open attachments unless you confirm the incoming address of the sender.

Mr. Yealy,
We have reviewed the subject project that proposes to construct a solar facility in Isle of Wight County. We do not currently document any listed wildlife or designated resources under our jurisdiction from the project area. Therefore, we do not anticipate adverse impacts upon such species or resources to result from the proposed work.

We document colonial waterbird colonies containing great blue herons from the project area, near the headwaters of Lake Burnt Mills. We generally recommend a time of year restriction on construction activities located within 0.5 mile of a colony from February 15 through July 31 of any year. We also recommend that a 500-ft naturally vegetated, undisturbed buffer be left on the colony to ensure habitat suitability into the future. If any colonial waterbird colonies are identified on site, we recommend additional coordination with us to ensure its protection.

To further minimize impacts upon wildlife, we recommend review of and adherence to the solar facility development, operation, and fencing recommendations included within the document found here: https://dwr.virginia.gov/wp-content/uploads/media/Solar-Energy-Facility-Guidance.pdf

Thank you, Amy

Amy Martin
(she/her/hers)
Manager, Wildlife Information and Environmental Services
P 804.481.5296
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CONSERVE. CONNECT. PROTECT.
A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228-0778
www.dwr.virginia.gov

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Enclosure C: VA DCR Coordination Letter

Travis A. Voyles
Secretary of Natural and Historic Resources

Matthew S. Wells
Director

Andrew W. Smith
Chief Deputy Director

Frank N. Stovall
Deputy Director for Operations

Darryl Glover
Deputy Director for Dam Safety, Floodplain Management and Soil and Water Conservation

Laura Ellis
Deputy Director for Administration and Finance

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

March 10, 2023

Jacob Yealy
Dawood Engineering
4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112

Re: VAL035 Solar

Dear Mr. Yealy:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

DCR recommends the development of an invasive species management plan for the project and the planting of Virginia native pollinator plant species that bloom throughout the spring and summer, to maximize benefits to native pollinators. DCR recommends planting these species in at least the buffer areas of the planned facility, and optimally including other areas within the project site. For screening zones outside the perimeter fencing, DCR recommends native species appropriate for the region be used. Guidance on plant species can be found here: http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder. In addition, Virginia native species alternatives to the non-native species listed in the Virginia Erosion and Sediment Control Handbook (Third Edition 1992), can be found in the 2017 addendum titled "Native versus Invasive Plant Species", here: https://www.deq.virginia.gov/home/showpublisheddocument?id=2466. Page 3 of the addendum provides a list of native alternatives for non-natives commonly used for site stabilization including native cover crop species (i.e. Virginia wildrye).

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months (September 10, 2023) has passed before it is utilized.

A fee of $90.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from http://vafwis.org/fwis/ or contact Amy Martin at (804-367-2211) or amy.martin@dwr.virginia.gov.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,

Tyler Meader

Tyler Meader
Natural Heritage Locality Liaison

CC: Susan Tripp, DEQ
Randy R. Keaton, Isle of Wight County Administrator

Enclosure D: NOAA ESA Section 7 Map & Coordination Email

Drawn Action Area & Overlapping S7 Consultation Areas

Area of Interest (AOI) Information

Area : 2,544.77 acres

Feb 9 2023 13:56:07 Eastern Standard Time



Summary

Name	Count	Area(acres)	Length(mi)
Atlantic Sturgeon	0	0	N/A
Shortnose Sturgeon	0	0	N/A
Atlantic Salmon	0	0	N/A
Sea Turtles	0	0	N/A
Atlantic Large Whales	0	0	N/A
In or Near Critical Habitat	0	0	N/A

Jacob Yealy

From: Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov>
Sent: Friday, February 24, 2023 7:07 AM
To: Jacob Yealy
Subject: Re: ESA Section 7 Coordination

Categories: Filed by Newforma

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On Thu, Feb 16, 2023 at 7:43 AM Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov> wrote:

Hi Jacob,

I apologize for the late response. Your email and attachments dated February 9, 2023, regarding three solar facility development projects in Virginia, requested information on the presence of ESA-listed species under our jurisdiction.

Although four species of sea turtles, shortnose sturgeon, and Atlantic sturgeon originating from five Distinct Population Segments (DPS) are known to occur in the Chesapeake Bay and its rivers and tributaries, based on the location the project and information you provided in your email and attachments, we believe that these species will not be exposed to any direct or indirect effects of the action. Therefore, we do not believe a consultation in accordance with section 7 of the Endangered Species Act (ESA) is necessary. As such, no further coordination on this activity with the NMFS Protected Resources Division is necessary at this time. Should there be additional changes to the project plans or new information becomes available that changes the basis for this determination, further coordination should be pursued. Please contact me (brian.d.hopper@noaa.gov), should you have any questions regarding these comments. If you have any questions regarding essential fish habitat, please contact Dave O'Brien (david.l.obrien@noaa.gov, 804-684-7828).
.

Regards,
-Brian

On Mon, Feb 13, 2023 at 10:17 AM NMFS.GAR ESA.Section7 - NOAA Service Account <nmfs.gar.esa.section7@noaa.gov> wrote:

Incoming tech assistance request

---------- Forwarded message ---------
From: **Jacob Yealy** <Jacob.Yealy@dawood.net>
Date: Thu, Feb 9, 2023 at 2:06 PM
Subject: ESA Section 7 Coordination
To: NMFS.GAR.ESA.Section7@noaa.gov <NMFS.GAR.ESA.Section7@noaa.gov>

Hello,

I am working on the T&E coordination for 3 solar facility development projects in Virginia. We're looking to verify that our projects have no potential to impact threatened or endangered species. A review of the Section 7 ESA Mapper was performed for each of the projects (attached). One of these (VAL025) has listed species and critical habitat near the project area. Another (VAL032) shows that the Section 7 Consultation Area is just outside of that 1-mile buffer, while the last (VAL035) has no Section 7 areas nearby.

Can you please confirm what materials are needed to perform a project review to ensure no potential impacts for the VAL025 project & that neither the VAL032 or VAL035 projects require further coordination with NOAA?

Thanks,

Jacob Yealy

Ecologist

Dawood Engineering, Inc.

Jacob.Yealy@dawood.net

Office: 717-732-8576

Mobile: 717-965-1521

--

Brian D. Hopper
Protected Resources Division
NOAA Fisheries
Greater Atlantic Regional Fisheries Office
200 Harry S Truman Parkway
Suite 460
Annapolis, MD 21401
240-628-5420
Brian.D.Hopper@noaa.gov
http://www.greateratlantic.fisheries.noaa.gov/

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Brian D. Hopper
Protected Resources Division
NOAA Fisheries
Greater Atlantic Regional Fisheries Office
200 Harry S Truman Parkway
Suite 460
Annapolis, MD 21401
240-628-5420
Brian.D.Hopper@noaa.gov
http://www.greateratlantic.fisheries.noaa.gov/



*

VAL035: CULTURAL RESOURCE ASSESSMENT

Isle of Wight County, Virginia

Prepared by:

DAWOOD
ENGINEERS ▸ PLANNERS ▸ SURVEYORS
4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112

Prepared For:
Elk Development, LLC
6865 Deerpath Road, Suite 330
Elkridge, MD 21075

SUMMARY

Phase I cultural resources surveys have been completed for the proposed Project. Shovel test pits were excavated at 15-meter intervals within the proposed limits-of-disturbance (LOD). No significant archaeological sites were identified within the Project Area. In addition, architectural surveys have been completed for the proposed Project. The Project area is a really flat and open landscape, and the solar field is close to three of the four potentially eligible resources documented. The Project proposes to install a tree screen along the western border of the project area and along a portion of the southwestern border to mitigate for such impacts. The archaeological and architectural survey findings will be submitted to Virginia's Department of Historical Resources for review and concurrence. A copy of the Phase I Cultural Resources Survey Report is attached.

A Phase I Cultural Resources Survey of Approximately 18 Acres Associated with the VAL-035 Solar Project, Isle of Wight County, Virginia

March 30, 2023

Prepared for:

Dawood Engineering, Inc.,
Attn: Mr. Kevin Rucker
4250 Crums Mill Road, Suite 301
Harrisburg, PA 17112

Prepared by:

Donald Sadler, Project Archaeologist

Sandra DeChard, Senior Architectural Historian

and

Brynn Stewart, Senior Principal Investigator

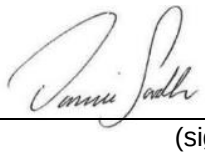
Stantec Consulting Services Inc.
5209 Center Street
Williamsburg VA 23188
(757) 220-6869

A PHASE I CULTURAL RESOURCES SURVEY OF APPROXIMATELY 18 ACRES ASSOCIATED WITH THE VAL-035 SOLAR PROJECT, ISLE OF WIGHT COUNTY, VIRGINIA

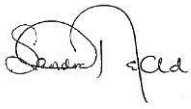
The conclusions in the Report are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from the Client and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

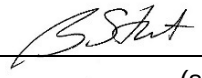
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Prepared by  (signature)

Donald Sadler, MA, Project Archaeologist

Prepared by 

Sandra DeChard, Senior Architectural Historian

Reviewed by  (signature)

Brynn Stewart, MA, Senior Principal Investigator

Approved by  (signature)

Seth Mitchell, MA, RPA, Principal Archaeologist

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Executive Summary

From February 20 to March 2, 2023, Stantec Consulting Services Inc. (Stantec) conducted a Phase I cultural resources survey of approximately 18 acres associated with the proposed 3 megawatt (MW) VAL-035 Solar Project (Project) in Isle of Wight County, Virginia. The Project is located northeast of the junction of Orbit Road (Route 637) and Bowling Green Road (Route 644). Private property borders the Project Area to the north and east. The Project Area comprises a relatively level fallow corn field. The work was conducted on behalf of Dawood Engineering, Inc. (Dawood).

The Phase I cultural resources survey was designed to locate and identify cultural resources within the defined Project Area, defined as the entire approximately 18-acre Project parcel, and to obtain sufficient information to make recommendations regarding their potential eligibility for listing to the National Register of Historic Places (NRHP).

Archaeological Survey

During the archaeological survey, Stantec conducted pedestrian survey of the entire Project Area concurrently with systematic subsurface testing. A total of 320 shovel tests were excavated at 50-foot intervals along 14 transects (Transects A–N) spaced 50 feet apart throughout the Project Area. One shovel test was not excavated due to its location in standing water. No shovel tests were positive for cultural material and no new isolated archaeological finds or new archaeological sites were identified during the investigation. ***Stantec recommends that no further archaeological investigation is necessary within the Project Area.***

Architectural Survey

A total of six individual resources were located within the architectural Study Area, defined as the Project Area and a 0.5-mile radius around the Project Area, and included five previously recorded and one newly recorded resource. Four of the five previously recorded resources have been determined potentially eligible for listing in the NRHP. Of these, two have been determined by DHR to be potentially eligible for listing (DHR #046-0004 and #046-0021) and two are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546). These four resources were surveyed in 2019 and were not resurveyed as part of the current project but were evaluated for potential visual effects of the proposed Project to each resource. One previously recorded resource was determined not eligible for listing in the NRHP (DHR #046-5646). The resource was also surveyed in 2019 and was also not resurveyed.

One newly documented resource was surveyed during the current project and is generally reflective of the mid- to late twentieth century development of Isle of Wight County and lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing in the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey. ***No further work is recommended for the newly recorded resource as part of the Project.***



Effects Evaluation

An effects evaluation was conducted for NRHP-listed, eligible, and potentially eligible properties which may be affected by the proposed Project. Four properties were assessed for effects and include the potentially eligible Cedar Acres (DHR #046-0004) and Seeds-Pierce House (DHR #046-0021) and two dwellings which are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546). Based on the current proposed Project Area and the existing landscape it is recommended that the proposed Project would have an **Adverse Effect** on all four resources. ***Based on the effects evaluation, it is likely DHR will require mitigation for Adverse Effect of the proposed Project. Suggested mitigation may potentially be vegetative screening*** (Appendix A).

Effects Evaluation of NRHP Eligible and Potentially Eligible Properties

DHR #	Resource Name	Date	NRHP Status/ DHR Recommendation Prior to Survey	Effects Assessment
046-0004	Cedar Acres, 12452 Redhouse Road	1798	Determined Potentially Eligible in 2019	Adverse Effect
046-0021	Seed-Pierce House, 18421 Orbit Road	1844	Determined Potentially Eligible in 2019	Adverse Effect
046-5545	House, 18402 Orbit Road	1906	Considered Eligible for Environmental Review Purposes in 2019	Adverse Effect
046-5546	House, 18493 Orbit Road	1950	Considered Eligible for Environmental Review Purposes in 2019	Adverse Effect

Abbreviations

amsl	above mean sea level
CHG	Cultural Heritage Group, Inc.
Dawood	Dawood Engineering, Inc.
DHR	Virginia Department of Historic Resources
GPS	Global Positioning System
H&P	Hurt & Proffitt
MW	megawatt
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
ROW	Right-of-Way
SCC	State Corporation Commission
Stantec	Stantec Consulting Services Inc.
STP	shovel test pit
USDI	United States Department of the Interior
V-CRIS	Virginia Cultural Resource Information System
VDOT	Virginia Department of Transportation

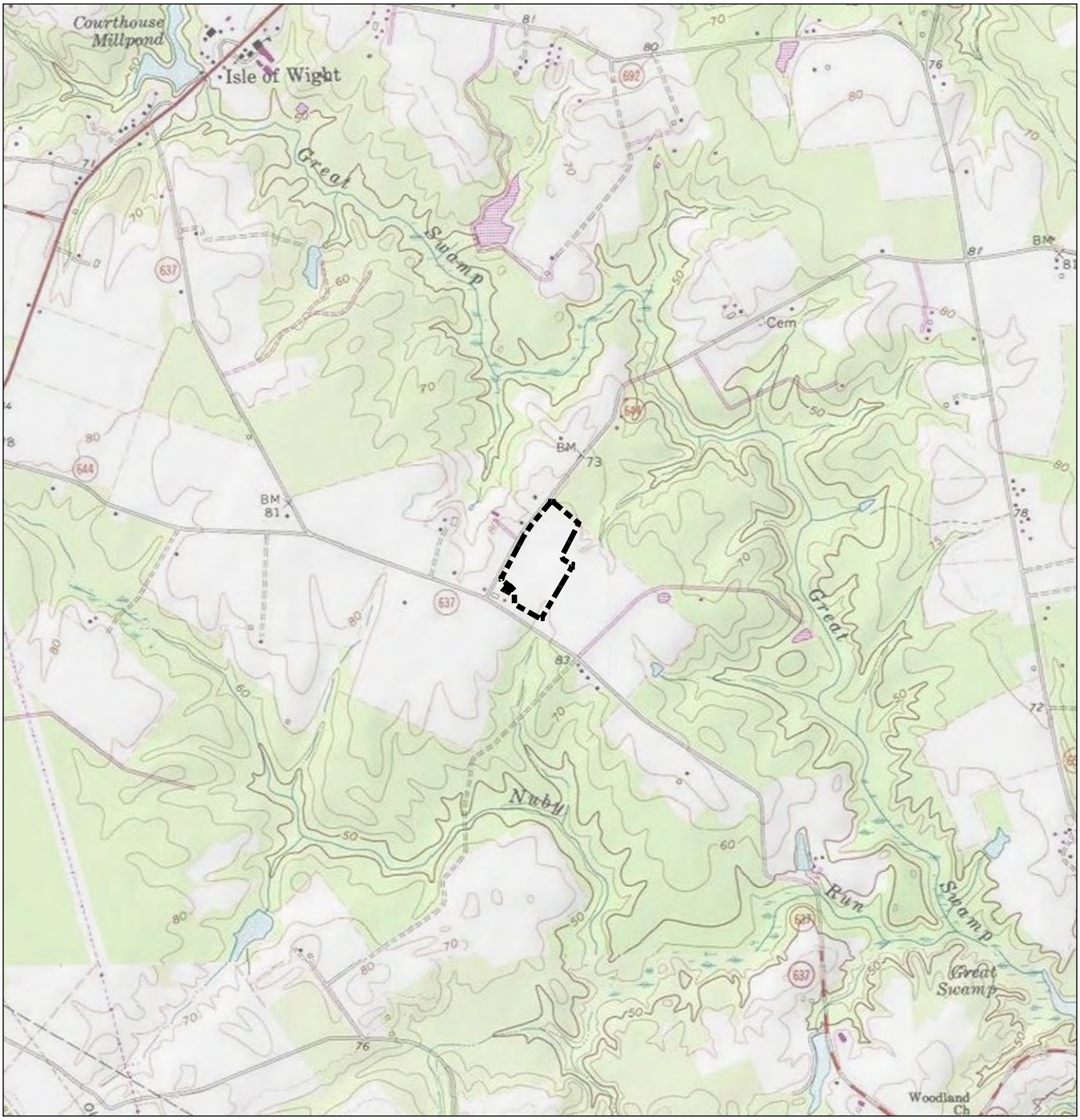


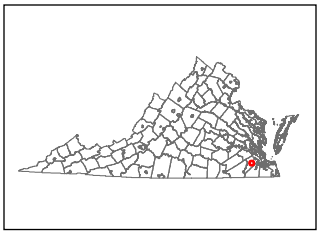
1.0 INTRODUCTION

From February 20 to March 2, 2023, Stantec Consulting Services Inc. (Stantec) conducted a Phase I cultural resources survey of approximately 18 acres associated with the proposed 3 megawatt (MW) VAL-035 Solar Project (Project) in Isle of Wight County, Virginia. The Project is located northeast of the junction of Orbit Road (Route 637) and Bowling Green Road (Route 644). Private property borders the Project Area to the north and east. The Project Area comprises a relatively level fallow corn field (Figure 1). The work was conducted on behalf of Dawood Engineering, Inc. (Dawood).

The cultural resources investigations described herein were conducted as part of the State Corporation Commission (SCC) application process. Additionally, all cultural resources services detailed herein were conducted pursuant to the National Historic Preservation Act of 1966, as amended, the Archeological and Historic Preservation Act of 1974, Executive Order 11593, and relevant sections of 36 CFR 60 and 36 CFR 800. The Stantec Project Managers directing this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). The cultural resources fieldwork component of these investigations will conform to the qualifications specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983) and the DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (2017).

Senior Principal Investigator Brynn Stewart oversaw the project. Project Archaeologist Donald Sadler and Senior Architectural Historian Sandra DeChard co-authored the resulting technical report. Project Archaeologist Donald Sadler directed the fieldwork and was assisted in the field by Archaeological Technician Mark Jacobs. Senior Architectural Historian Sandra DeChard oversaw the architectural fieldwork conducted by Architectural Historian Technician Olivia McCarty. GIS Analyst Elise Ljiko prepared the report graphics and project maps. Copies of all field notes, maps, correspondence, and historical research materials are on file at Stantec's office in Richmond, Virginia.





Project Area

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau
3. Topographic map © USGS 7.5 Minute Series Topographic Map, Smithfield, VA Quadrangle 1991

Stantec

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project
195602610
Dawood Engineering, Inc.
VAL035 Solar Project

Figure No.
1

Title
Project Location Map

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2.0 PHYSICAL AND ENVIRONMENTAL CONTEXT

2.1 INTRODUCTION

The Project Area is located northeast of the junction of Orbit Road (Route 637) and Bowling Green Road (Route 644) in Isle of Wight County, Virginia, and comprises a relatively flat recently fallow corn field. The Project Area is bounded by Orbit Road to the south, Bowling Green Road to the west, a private property fence line to the north, and privately-owned agricultural fields to the east. Drainage ditches are present along the northern and southern ends of the Project Area and a former ditch, which appear to have been infilled and utilized for access, extends southwest to northeast through the eastern portion of the Project Area.

2.2 GEOLOGY AND TOPOGRAPHY

The Project Area is located within the Coastal Plain physiographic province in the James River drainage basin. The Coastal Plain province is generally characterized by lowlands, with some elevated areas present, which are deeply dissected by drainages that trend mostly to the southeast, towards the Atlantic Ocean (Teifke 1973). Elevations within the Project Area range from approximately 55 to 66 feet above mean sea level (amsl).

The pre-Holocene geology of the Virginia Coastal Plain consists of igneous and metamorphic rocks of Precambrian and Paleozoic age overlain by a series of sedimentary deposits dating to the Cretaceous period. Geologists have divided the Cretaceous through Quaternary sedimentary deposits into five categories: Lower Cretaceous, Upper Cretaceous, Paleocene, Eocene, and Miocene (Teifke 1973). Beginning as early as the Late Cretaceous, a cycle of transgression and regression related to glacial activities and consequent sea level fluctuation is responsible for the formation of these sedimentary layers in the Coastal Plain. These layers have been named the Mattaponi (Upper Cretaceous/Paleocene), Nanjemoy (Eocene), Calvert (Eocene/Miocene), and Yorktown (Miocene) formations (Teifke 1973:10-11).

The Quaternary has been characterized by the continued deposition of clays, silts, sands, gravels, and peat bogs. The Late Pleistocene-Holocene geology of the Virginia Coastal Plain has mostly been characterized by marine transgression onto the land, filling what is today known as the Chesapeake Bay. Sedimentary systems affecting the area include fluvial and marine-estuarine depositional systems. Fluvial forces included overbank flow and stream meander resulting in alluvial deposition. Marine-estuarine soil deposition occurs during hurricanes, tidal floods, and longshore currents (Onuschak 1973:111-124).

The Project Area is situated on the Bacons Castle Formation, comprised of gray, yellowish-orange, and reddish-brown sand, gravel, silt, and clay that constitutes surficial deposits of high plains extending from Richmond eastward to the Surry Scarp. Within the Project Area, the unit consists of massive to thick-bedded pebble and cobble gravel, grading upward into cross-bedded, pebble sand and sandy, clayey silt (Rader and Evans 1993).

2.3 HYDROLOGY

The Project Area is drained by Nuby Run. Nuby Run flows into the Great Swamp, which drains into Lake Burnt Mills and the Western Branch Reservoir. This drainage system flows into the Nansemond River, a tributary of the James River. The James River flows into the Chesapeake Bay and thence to the Atlantic Ocean.

2.4 SOIL MORPHOLOGY

Soils within the Project Area ranged from somewhat poorly drained to moderately well drained, with moderately well drained soils dominating. Table 1 presents the soil types found within the Project Area and serves as a key to Figure 2.

Table 1 Key to the Soils Map

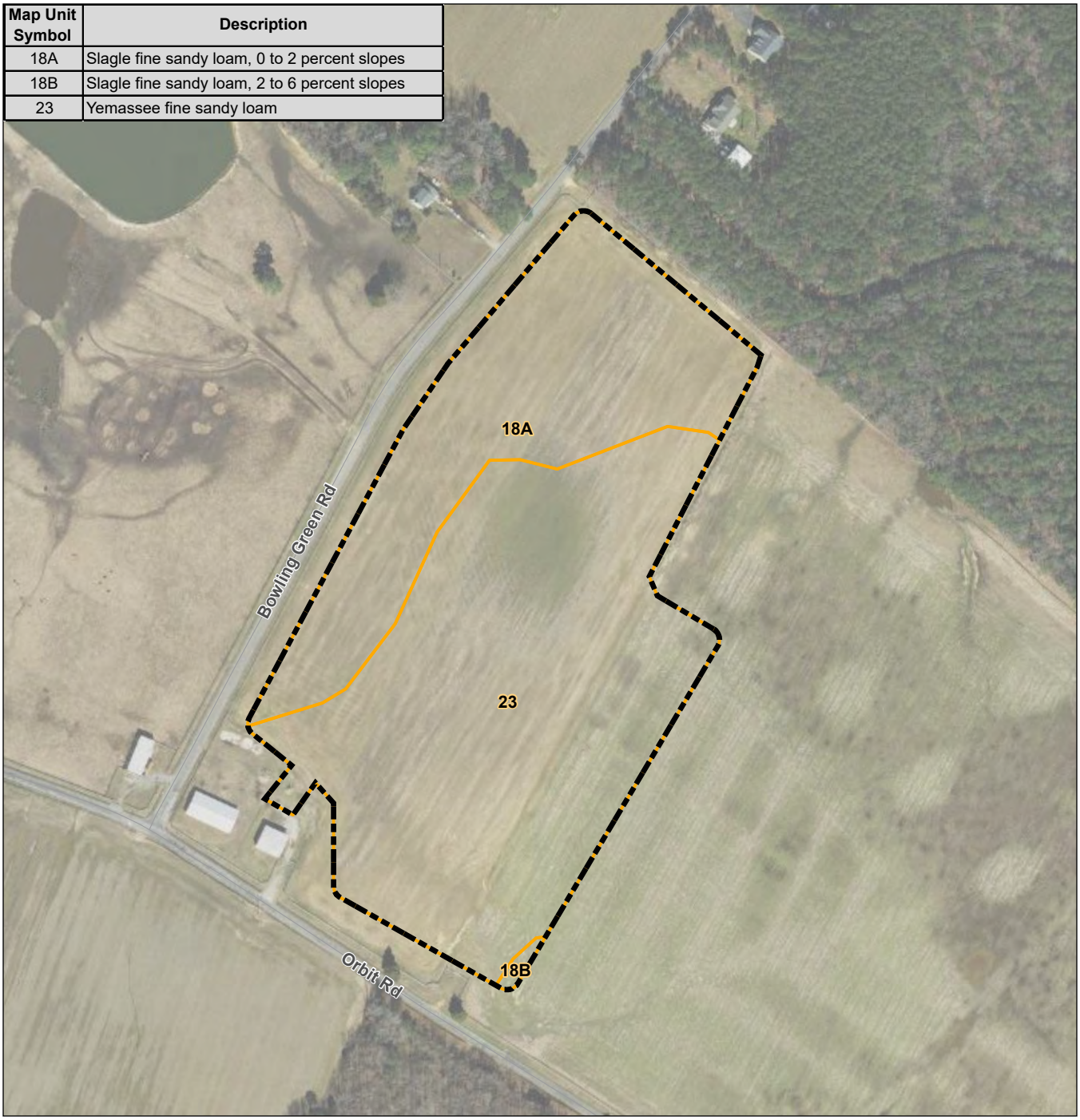
Symbol	Map Unit Name	Percent Slope	Drainage Description
18A	Slagle fine sandy loam	0–2	Moderately Well Drained
18B	Slagle fine sandy loam	2–6	Moderately Well Drained
23	Yemassee fine sandy loam	0–2	Somewhat Poorly Drained

2.5 NATURAL RESOURCES

Floral and faunal communities in southeastern Virginia have changed considerably over the past 10,000 years. This environmental change was linked to the warming trend that caused glaciers to melt and sea levels to rise. By the Early Holocene, beech, hemlock, and birch were the dominant species, and the former pine spruce forests of the Late Pleistocene became less common. In general, a mixed hardwood forest dominated the Mid-Holocene and included hazelnut, alder, maple, black gum, beech, ash, and walnut (Dent 1995:86). Stands of oak and hickory were also common during this period, and hickory nuts appear to have been a significant element of the diet of Mid-Holocene occupants of the Coastal Plain (Whyte 1990:126).

After 5,000 years ago, the climate of the Chesapeake Bay region became increasingly drier, and white oak continued to be the dominate forest species, with pine becoming increasingly more common. Additionally, legumes and arrowwood joined elderberry and blueberry as significant understory species. By approximately 1,700 years ago, the region became wetter and cooler, and mixed hardwood vegetation combined with an increase in pine, particularly in the lower Tidewater area, dominated the regional flora (Dent 1995:86-88).

Map Unit Symbol	Description
18A	Slagle fine sandy loam, 0 to 2 percent slopes
18B	Slagle fine sandy loam, 2 to 6 percent slopes
23	Yemassee fine sandy loam





Project Area
Soils

0 150 300 Feet

(At original document size of 8.5x11)
1:3,600

N

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau, USDA NRCS SSURGO Soil Survey, VDOT
3. Orthoimagery © Virginia Geographic Information Network (VGIN)

Stantec

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project 195602610
Dawood Engineering, Inc.
VAL035 Solar Project

Figure No.
2

Title
Soils Map

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Wetland environs have also undergone considerable change over time as sea level fluctuations have created, destroyed, and recreated new estuaries and tidal flats. Cypress and white cedar were the most common trees in the wetland areas of the region during the prehistoric period, a trend that has continued into the present. While cordgrasses were prominent in estuarine areas, sedges and other grasses dominated freshwater wetlands. These grasses would have played an essential role in the lives of the region's indigenous population (Dent 1995:91-92).

The unique freshwater/saltwater environment found in the local estuary system has served to create a wide degree of faunal diversity in the region. By approximately 2,000 to 3,000 years ago, human populations would have enjoyed an ecosystem similar to that of today. A wide variety of fish and shellfish species coupled with numerous avian species would have allowed prehistoric inhabitants of the area to exploit an abundant food base. Likewise, the cultivation of plants such as corn, beans, and squash, and the hunting of mammalian species would have completed a tremendously diverse diet. Oysters, crabs, fresh and saltwater clams, shrimp, mussels, bass, flounder, shad, herring, snapper, sturgeon, and bluefish were among the important riverine and estuary fauna of the tidewater area that native inhabitants of the region would have exploited (Dent 1995; Stevens 1991).

3.0 CULTURAL CONTEXT

Virginia's Native American prehistory is typically divided into three main periods: Paleoindian; Archaic; and Woodland. These divisions are based on changes in material culture and settlement systems. In more recent decades, the possibility of human presence in the region that predates the Paleoindian period has moved from remote to probable. For this reason, a Pre-Clovis discussion precedes the traditional tripartite division of Virginia's Native American history. The seventeenth-through twentieth-century historical overview follows the DHR (2017) guidelines. The cultural context, as defined by the *Secretary of the Interior's Standards and Guidelines for Archaeology* and Chapter3 of the DHR's 2017 guidelines, provides the historic, social, and environmental information required for evaluation of any cultural resources present within the Project Area.

3.1 PRE-CLOVIS (? –13,000 BC)

The 1927 discovery of a fluted point in the ribs of an extinct species of bison at Folsom, New Mexico proved that ancient North Americans had immigrated during the Pleistocene. It did not, however, establish the precise timing of the arrival of humans in the Americas, nor did it adequately resolve questions about the lifestyle of those societies (Meltzer 1988:2-3). Both the stratigraphic record and the radiocarbon assays from several sites, including the Cactus Hill site in Sussex County, Virginia (44SX0202), suggest the possibility of human occupation of North America before the fluted point makers appeared on the scene (McAvoy and McAvoy 1997). Buried strata at the Cactus Hill Site have returned radiocarbon dates of 15,000 years ago from strata situated below levels containing fluted points (McAvoy and McAvoy 1997:165). To date only a handful of pre-Clovis sites have been identified in North America, including in Pennsylvania, Virginia, and New Mexico. Though the likelihood of identifying pre-Clovis sites within the Project Area is extremely low.

3.2 PALEOINDIAN PERIOD (PRIOR TO 8000 BC)

In the decades following the discovery at Folsom, New Mexico, the association of fluted points with the bones of large, extinct mammals, in particular mastodons, on the western plains coupled with the scarcity of other Paleoindian sites, led to the inference that the Paleoindian subsistence strategy centered on the pursuit of big game. This picture, however, exaggerates the reliance of western Paleoindian groups on large game, and appears to be of limited relevance to eastern Paleoindian life. The archaeological data from Virginia compiled by Dr. Ben McCary records numerous discoveries of fluted points, but no unambiguous association between extinct large game and fluted points (Boyd 1989:139). A similar situation occurs throughout the eastern United States. For this reason, many archaeologists now hold that eastern Paleoindians were generalized foragers (e.g., Grayson and Meltzer 2003; but see Fiedel and Haynes 2004).

Most large Paleoindian sites in the southeastern United States are quarry or quarry-related (Meltzer 1988:21), though multiple band aggregation sites also occur (McAvoy 1992:145). Recognizable sites most often result from long-term habitation or repeated use of the same location. It follows from the presence of primarily quarry or quarry-related sites that stone outcrops were regularly revisited. Though the full range of available lithic resources was used to manufacture fluted points (e.g., Phelps 1983), a number of studies have noted a focus on cryptocrystalline materials (e.g., chert, jasper, chalcedony) (Gardner 1974, 1989; Goodyear 1979). The recovery of cryptocrystalline materials at locations far removed from quarries indicates exchange, extensive group movement, or both characterized the Paleoindian era. In addition, the very limited differences between sites and within sites suggest that most people had access to all available resources, while the small size of most Paleoindian sites indicates group size generally was limited to extended families.

3.3 ARCHAIC PERIOD (8000–1200 BC)

The Archaic began with the northward retreat of periglacial environments and the appearance of archaeological assemblages lacking fluted points. In the Chesapeake Bay region, a shift from moist, cool conditions to a warmer, drier climate accompanied the glacial retreat. In response to changing climatic conditions, in particular the receding icesheets, Chesapeake Bay sea levels rose continuously from roughly 15,000 years ago to the present. Simultaneously, local subsidence of the earth's crust also may have contributed to the formation of the Chesapeake Bay. Between 15,000 and 14,000 years ago, the waters of the Atlantic began to submerge portions of the continental shelf. For every 30 centimeters (approximately 1 foot) of sea level rise, approximately 510 meters (approximately 1,673 feet) of the shelf were inundated. Ten thousand years ago the sea began to flood the mouth of the ancestral Susquehanna River, located near the present-day mouth of the Chesapeake Bay. Sea level rose at 0.2 centimeter (approximately 0.1 inch) per year between 8000 and 3000 years ago. At 8000 years ago, the head of the ancestral bay was near Smith Island, at 5000, near Annapolis, and by 3000 years ago, it had reached the Sassafras River. Numerous archaeologists suggest that the stabilization of water levels in the bay at this time provided the necessary conditions for the development of extensive shellfish beds and habitats favorable for anadromous fish (e.g., Waselkov 1982). After approximately 1000 BC, sea level rise slowed to approximately 0.12 centimeter/year, and Chesapeake Bay approached its present contours (Dent 1995:69-95).

In addition, in contrast with the broad similarity among Paleoindian point forms, distinct style zones developed during the Early and Middle Archaic (8000–3500 BC). The Atlantic Coast/Southeastern stylistic sequence was not characteristic of the Midwest (Ford 1974:392). In addition, increased use of locally available lithics occurred between 8000 and 3500 BC (Custer 1990:36; Sassaman et al. 1988:85-88). The reduction of the size of style zones and the focus on local lithic materials implies contracting social networks and incipient territories, possibly a reaction to population growth (Anderson and Hanson 1988:271). Despite changes in patterns of mobility and point form, numerous archaeologists argue on environmental (Custer 1990:2-8) and subsistence (Smith 1986) grounds for continuity in social dynamics between 10,000 and 6,000 BC. From this point of view, Dalton through Lecroy populations exhibited "general similarities and regional habitat-related variation in settlement-subsistence patterns and material

culture assemblages" (Smith 1986:10). Band-level social organization involving seasonal movements corresponding to the seasonal availability of resources and, in some instances, shorter-interval movement characterized Archaic societies.

Reliance on ground-stone technology increased during the Archaic period. New tool categories associated with the Archaic include celts, net sinkers, pestles, pecked stones, and axes Archaic knappers also produced chipped-stone versions of celts and axes and, near the end of the Late Archaic, labor-intensive vessels carved from soapstone quarried in the Piedmont formed an important part of assemblages (Geier 1990; McLearen 1991).

3.3.1 Early Archaic (8000–6500 BC)

Corner- and side-notched points with serrated blades predominate at the beginning of the Early Archaic period, reflecting innovation in hafting technology and, possibly, the invention of the atlatl. Notched point forms include Palmer and Kirk Corner-Notched and, in localized areas, various side-notched types. Around 7000 BC, a variety of bifurcate base projectile point forms appeared in the Middle Atlantic region. In eastern Virginia, LeCroy points constitute the majority of bifurcate forms (Dent 1995; Justice 1995). Despite the shift in point form over time some researchers portray the Early Archaic as a continuation of the Paleoindian period, characterized by reliance on cryptocrystalline lithic material and similar settlement and subsistence patterns (Gardner 1989). Early Archaic sites are still locally uncommon at this time, and it is during the Middle Archaic period that a proliferation of sites occurs in the region (Gardner 1982, 1986).

3.3.2 Middle Archaic (6500–3000 BC)

The appearance of stemmed projectile points and a shift towards more expedient use of stone marks the beginning of the Middle Archaic across much of the Atlantic Slope and Southeast (Amick and Carr 1996:43-45; Justice 1995). In this area of Virginia, the most common Middle Archaic projectile point types are (from oldest to most recent) LeCroy, Stanly, Morrow Mountain, and Guilford, followed by the side-notched Halifax type sometime after 3500 BC. This latter type is generally one of the most abundant found in upland interior settings; however, it is possible that many riverine sites of the period are hidden under alluvial sediment. Informal modified flakes to some extent replaced formal unifacial tools, and local materials constitute a greater percentage of Middle Archaic assemblages than had been true of earlier time periods. Sites occur throughout the landscape, including beneath the now-inundated Chesapeake Bay (Blanton 1996; Dent 1995:173-178).

An analysis of components from the Piedmont (Klein and Klatka 1991) indicates only slightly higher use of interior uplands over riverine settings during the Middle Archaic period and, within the riverine settings such as the present Project Area, there is a fully equal use of both alluvial landforms (floodplains/low terraces) and upland landforms/bluffs adjacent to the rivers (Klein and Klatka 1991:155). However, a repetition of this pattern in the Project Area, located within the Valley and Ridge region, would be dependent on geomorphological conditions: i.e., artifacts indicating the entire span of the Middle Archaic could be present on all landforms, unless the alluvial bottoms are restricted to sediments of too recent an

age to contain deposits of such antiquity. Where sediments are too young, however, evidence of Middle Archaic presence should be concentrated on old, stable landforms lying as close as possible to the river and its small tributary streams.

3.3.3 Late Archaic (3000–1200 BC)

Stemmed and notched knife and spear point forms, including various large, broad-bladed stemmed knives and projectile points (e.g., Savannah River, Susquehanna, Perkiomen points), rank among the most distinctive and securely dated Late Archaic point forms (Coe 1964; Dent 1995; Justice 1995; Ritchie 1971). Marked increases in population, and, in some areas, decreased mobility appear to characterize the Late Archaic throughout eastern North America. Locally, the increase in the number of Halifax and Savannah River components and sites relative to the preceding periods suggests population rose in Virginia between about 3500 BC and ca. 1200 BC.

Mouer (1991a:262) believes it likely that “at least intensive harvesting of wild seeds,” if not the beginnings of domestication, characterized Transitional through Early Woodland times (ca. 2000–500 BC) in the Chesapeake Bay region, as it did in the Midwest. The process, however, did not proceed at an even rate across the Eastern Woodlands or the Middle Atlantic Region (Stewart 1995:184-5). Yarnell (1976:268), for example, states that sunflower, sump weed, and possibly goosefoot may have been cultivated as early as 2000 BC. In the lower Little Tennessee River valley, the remains of squash have been found in Late Archaic Savannah River contexts (ca. 2400 BC), with both squash and gourd recovered from Iddins period contexts of slightly more recent date (Chapman and Shea 1981:70). Experiments with domestication in the Mid-Continent indicate the possibility, even the likelihood, that the inhabitants of the Middle Atlantic cultivated small grains and other plants (Hodges 1991:228-230; Mouer 1991b:259-263). “Scant” evidence for early cultivation appears in the archaeological record from Virginia, however (Mouer 1991a:259; Gallivan and McKnight 2006).

Soapstone bowls are a well-known feature of Late Archaic exchange systems (McLearen 1991:107-8). In addition, Stewart (1989:52) argues for broad-based exchange of "artifacts made from jasper, argillite, rhyolite, ironstone, soapstone, Midwestern lithics, obsidian, marine shell and copper" throughout the Middle Atlantic region during the Late Archaic. Thus, Late Archaic society clearly differed from that of earlier times. The production and wide-spread exchange of utilitarian and ritually important, labor-intensive goods does not fit the expected archaeological signature of highly egalitarian foragers. Rather, a social order exhibiting some sort of status differences among individuals or groups (Mouer 1991a:265) and somewhat restricted group movement (Stewart 1989:57) likely existed. Still, sites dating to the Late Archaic occur frequently throughout Virginia and the Middle Atlantic region. Late Archaic sites occur in greater numbers and in a wider range of environments than sites associated with the Early and Middle Archaic periods (Klein and Klatka 1991).

3.4 WOODLAND PERIOD (1200 BC–AD 1600)

Increasing use of ceramic technology, a growing dependence upon horticulture, and a shift toward greater sedentism characterize the Woodland period. Most researchers divide the Woodland period into



three sub-periods (Early Woodland, Middle Woodland, and Late Woodland), based primarily on stylistic and technological changes observed in ceramic wares and projectile points, as well as shifts in settlement patterns (e.g., Gardner 1982). Not all researchers agree with this tripartite subdivision, however.

3.4.1 Early Woodland (1200–500 BC)

The onset of the Woodland period traditionally correlates with the appearance of ceramics (Willey and Phillips 1958:118). Early theorists linked ceramics with agriculture, though few continue to support this position (cf. reviews in Egloff 1991; Hodges 1991). Rather, the evolution of subsistence and technological systems (e.g., Gardner 1982) and various aspects of pan-Eastern interaction (e.g., Egloff 1991; Klein 1997) currently are believed to underlie the evolution of ceramic containers.

The steatite-tempered Marcey Creek type and variants containing other mineral inclusions appear to date between 1200 and 800 BC (Egloff 1991:244-5). Manson (1947) unearthed flat-bottomed, plain sherds and cord-marked sherds with conoidal bases, both of which included soapstone-temper, in the uppermost of two distinct strata at the Marcey Creek Site. The lowermost level contained narrow variants of Savannah River points, termed Holmes Points by Gardner (1986), and soapstone bowls, suggesting that soapstone-tempered sherds post-date bowls of soapstone (but see Sassaman 1999). Earlier Slattery (1946) had identified similar sherds at a site on Seldon Island, along the Potomac River to the northeast of Leesburg, along with sand-and-grit tempered sherds. Though friable sand-and-grit-tempered Accokeek Creek and Elk Island ceramics appear subsequent to Marcey Creek, associated C-14 on stratified sites, dates range from 1100 through 500 BC. Klein and Stevens (1996) cite regional data to support the proposition that, while the thickness, amount of temper, and size of temper in quartz/sand-tempered, cord-marked ceramics shifted over time, similar pots continued in use into Middle Woodland times.

Small bifaces and expedient tools such as drills, perforators, scrapers and utilized flakes regularly appear in Early Woodland assemblages. Other lithic artifacts reported on Early Woodland sites in the Chesapeake region include bipolar flakes, hammerstones, net sinkers, mortars, and pestles (McLearen 1991). Also noted on sites in the region are tools of bone, and projectile points manufactured from antler, bone, turkey spurs, and shark's teeth (Waselkov 1982). The increased number of sites dating to the Early Woodland, coupled with the recognition of structures, features, and activity areas at some sites, suggests rising population size in the Chesapeake region (e.g., Mouer 1991b:38-9; Stewart 1995:183). In contrast, noting that the addition of pottery to stone adds temporally diagnostic artifacts to the archaeological record, Fiedel (2001:106–7) observes that more sites are expected to appear in the archaeological record during Woodland times. Furthermore, the various Broadspears, dating to the Terminal Archaic (ca. 2000–1000 BC), may represent a curated technology (Barber and Tolley 1984), while replication experiments suggest stemmed bifaces similar to Early Woodland types rank among the easiest forms to produce using quartz (Bourdeau 1981). Therefore, a shift from a curated, less commonly discarded biface form, to points easily produced from a ubiquitous material accompanied the appearance of ceramics. Thus, the absence of a dramatic swell in the number of sites, coupled with decreased representation of diagnostic point forms, indicates a demographic trough or at best a flat demographic curve characterized the period.

In general, sparse concentrations of artifacts characterize Early Woodland sites (Mouer 1990:160-174; Stewart 1998:2). Regardless, the preservation of an extensive accumulation of Early Woodland artifacts suggests the existence of a unique geomorphological, and probably social, setting. Overall, the data appear to indicate a return to the mobile, egalitarian social organization characteristic of Early and Middle Archaic times (Klein 2003). Even at large Early Woodland sites post-dating AD 800, very limited evidence of long-distance exchange or the manufacture of labor-intensive artifacts comparable to the soapstone exchange of the Terminal Archaic appears.

3.4.2 Middle Woodland (500 BC–AD 900)

Popes Creek net-impressed ceramics appear after roughly 500 B.C., marking the beginning of the Middle Woodland I period (500 BC−AD 200) (Blanton 1992:72-3; Egloff and Potter 1982:99). Cord-marked ceramics and stemmed points, however, continued in use for some time after AD 500 (McLearen 1992:44-5), for example, lumps the period between 3000 BC and AD 1000 under the rubric Woodland I based on the similarity in adaptation and the presence of considerable variation in the form of contemporaneous stemmed and notched points.

Net-impressed surface treatments occur on a variety of ceramic types manufactured during Middle Woodland times. Pope's Creek ceramics first appear after 500 BC, with the start of the Middle Woodland (Blanton 1992:72-3; Egloff and Potter 1982:99). Early Woodland cord-marked ceramics and stemmed projectile points are found in Middle Woodland contexts, suggesting a continuation of Early Woodland technologies (McLearen 1992:44-5). The Prince George and Varina types appear to represent a continuum of development in the technology used to produced Popes Creek sherds, rather than dramatically different types (Mouer et al. 1986).

The appearance of assemblages containing significant amounts of durable ceramics after 500 BC indicates a shift in the organization of production occurred during the Middle Woodland periods (Brown 1986, 1989). In addition to the advantages of ceramic vessels as cooking pots, ceramic production contrasts with the manufacture of baskets and wooden bowls in its embrace of economies of scale. Rather than a start-and-stop process that fits well into odd bits of time, ceramic production required greater scheduling and continued attention over an extended period of time. Shifts in the scheduling of work, therefore, accompanied the transition from Early to Middle Woodland times.

Broad-spectrum hunting-fishing-gathering continued to characterize the region as a whole throughout the Middle Woodland period. Shellfish, anadromous and resident fishes, deer, waterfowl, and turkey ranked high among the important fauna in the Middle Woodland diet. Various nuts, amaranth, and chenopod seeds also appear to be important resources during this period. After 300 BC, large shell middens containing dense concentrations of artifacts become increasingly common, indicating repeated use of at least one type of site. Middens and the presence of houses at a number of sites indicate longer stays, though populations remained far from sedentary (Gallivan 2003). People continued to reside for much of the year in relatively small settlements, and interior storage features rarely occur on Middle Woodland sites (Gallivan 2003:75-98).

3.4.3 Late Woodland (AD 900–1600)

Intensified use of cultivated plants, particularly maize, beans, and squash, distinguished the Late Woodland adaptation from that of earlier periods. European accounts describe a heavy reliance on slash-and-burn agricultural methods. In addition to cultigens and shellfish, Late Woodland peoples throughout the region continued to rely on various mammals, fish, and birds for sustenance (Dent 1995:251). Perhaps as a consequence of the greater importance of cultigens in the diet, access to expanses of arable land ranks among the most important factors influencing site selection (Dent 1995; Potter 1993).

Small, triangular arrow points, generally believed to reflect the widespread use of the bow-and-arrow, form the overwhelming majority of Late Woodland projectile points. Triangular points include the Levanna, Madison, Roanoke, and Clarksville types, which vary in size and base form. Point size may also decrease over time (Coe 1964; Potter 1993; Ritchie 1971). Shell beads and copper beads became important ornaments and symbols during the Late Woodland period, primarily in the last few centuries prior to the arrival of European colonists. Powhatan's Mantle, a deerskin cloak decorated with thousands of small marginella beads sewn into various patterns, reflects the use of shell beads as symbols of identity and status. Pendants and gorgets made of shell were also common. Of note, five engraved shell masks, decorated with a traditional Southeastern "forked/weeping eye" motif were found in a seventeenth-century burial on the floodplain of the Potomac River in Stafford County. Three of the five masks exhibit similarities to masks recovered from sites in the Southeastern U.S. (Smith and Smith 1989), possibly an indication of long-distance trade. Bone also was used to manufacture beads, as well as utilitarian items such as pins, fishhooks, and points.

Late Woodland populations constructed palisaded villages. In addition, Native American settlements included nucleated villages lacking palisades, dispersed hamlets, and temporary camps. Work by Potter (1993), Hodges and Hodges (1994), and Mouer et al. (1992) suggest that dispersed villages were common throughout Virginia. Housing varied throughout this region: some sites show evidence of longhouses located adjacent to the palisade, while elsewhere, short, oval structures have been unearthed (Dent 1995; Gallivan 2003; Hodges and Hodges 1994; Mouer et al. 1992; Potter 1993; Stephenson 1963).

The large base camps, hamlets, and villages are typically located on bluffs, terraces, or high floodplains adjacent to rivers or major tributaries. Small seasonal camps and non-seasonally based satellite camps supporting nearby sedentary villages and hamlets are located along smaller streams in the interior. Limited concentrations and sparse scatters of lithics and ceramics typically characterized these campsites. The majority of the Late Woodland sites that had been recorded at the time of the Barber et al. (1992) study were located along the major high order streams and rivers, consistent with the ethnohistoric evidence (e.g., Rountree et al. 2007). By the end of the Late Woodland Period, Dent (1995) notes that a generally unoccupied buffer zone appears to have been maintained between the Powhatan on the inner Coastal Plain and the Monacan west of the fall line. According to Dent, this, and other similar buffer zones throughout the Chesapeake region, may have been game preserves or just "...the result the tendency of chiefdoms to nucleate populations for the purposes of control."



3.5 SETTLEMENT TO SOCIETY (1600–1750)

In May 1607, a small group of Englishmen under the authority of the Virginia Company of London arrived at Jamestown Island, where they established the first permanent English settlement in the New World. English contact with Native Americans living in what is now Isle of Wight County occurred in 1608 when Captain John Smith purchased 20 bushels of corn from the Warrosquoyacke people. Smith and other early settlers contacted the Warrosquoyacke on several occasions as their villages were located along the James River near Pagan Point (Boddie 1938).

The first English settlers in what is now Isle of Wight County included Captain Christopher Lawne, Sir Richard Worsley, Nathaniel Basse, and John Hobson. Soon after their arrival at Jamestown in April 1619, a settlement was established on the south shore of the James River at Lawne's Creek, near the current boundary between Isle of Wight and Surry counties (Morrison 1907). Lawne's plantation was known as Warrosquoyacke, after the local Indian group. Lawne represented his plantation at the first meeting of the House of Burgesses in 1619; however, Lawne and most of the settlers on his plantation died within the year. After Lawn's death, the plantation was renamed Isle of Wight Plantation for the English island where a number of the early settlers were from (Morrison 1907). Edward Bennett was granted a patent along the Pagan River in 1621, and was soon followed by Nathaniel Basse, who settled at Basse's Choice. These Southside settlements were devastated and suffered the loss of 53 colonists the following year during the Powhatan uprising and massacre of 1622. Sir George Yeardley led a punitive expedition later in the year against the Warrosquoyacke and Nansemond, which helped to open the south shore of the James to increasing settlement. When Virginia's first counties were created in 1634, Warrosquoyacke County encompassed the Isle of Wight (Hiden 1957). Warrosquoyacke was divided in 1647 between Isle of Wight to the west, and Upper and Lower Norfolk counties to the east. Early settlement of the county centered round the James River's south shore and both the east and west shores of Pagan Creek (King 1993). In the 1623-1624 census, only 53 people lived at Warrosquoyacke as settlers were hesitant to return after the 1622 massacre (Boddie 1938; Morrison 1907).

As early as 1632, The Old Brick Church, now known locally as Old Saint Lukes Church, was constructed. Though the exact date of construction is not known, a church was extant at least by 1638. A deed registering the conveyance of 100 acres to John Marshall references the church and that the parcel was bound by a deep swamp (Jones Creek) (King 1993). John Fulgham, also in 1638, deeded one acre of land to the Lower Parish vestry which was described as the land on which the church stood and that it was located near a deep swamp. This information further confirms the presence of the church in 1638 (King 1993). In addition to confirming the location of the Old Brick Church, these deeds also reference the "main road" which appears to generally follow the current course of Route 10 between Smithfield and Suffolk. The colonial settlement of Isle of Wight County focused on the major rivers and especially along the James and Pagan rivers near Smithfield.

3.6 COLONY TO NATION (1751–1789)

The latter half of the eighteenth century brought widespread changes to the American colonies. The French and Indian War, which began on the Virginia frontier in 1753, caused Britain to levy new taxes and



to impose new restrictions upon settlement of new territories in 1763. Parliamentary Acts restricted free trade and navigation, imposed unpopular taxes on items such as molasses (1733) and sugar (1764), and the Stamp Act of 1765 coupled with the doubling of the Export Tax the year before put severe strains on Northern merchants. The trickle-down effect on Southern planters was apparent. Tobacco prices were persistently low, the economy sluggish, and the dependence and indebtedness to British merchants was growing. The complaints of these southern planters, their northern merchants, and the western land speculators helped to "unite" an otherwise diverse continent into what would become a country (Sadler 2006:24; Billings 1975).

Isle of Wight's economy in the second half of the eighteenth century still centered around tobacco cultivation, despite the fact that the Southside's sandy soils were never particularly conducive to growing it. By the later years of the eighteenth century, however, Isle of Wight's farmers were beginning to diversify their crops and explore alternative products. Touring the Smithfield area in 1783, German visitor Johann David Schoeff commented that:

> "…the coast is nearer here, one has passed the tobacco country proper, the plant not thriving on the poorer sandy soil of the region, but tobacco is brought hither from more distant parts; on the other hand, the extensive pine forests supply a different sort of produce, namely tar, pitch and turpentine, which with salted hog meat are the most important articles for export of this place" (King 1993:194).

Isle of Wight County was the scene of several military actions during the seventeenth and eighteenth centuries. In 1676, the county was the scene of Bacon's Rebellion and during the Revolutionary War, British troops passed through the county (Morrison 1907). As with most other parts of Virginia, Isle of Wight's citizens' loyalties were divided, as revolution grew imminent in the 1770s. A considerable number of English and Scots immigrants resided in Isle of Wight, and when they left the county—willingly or not—their lands were considered escheated and sold to their more "patriotic" neighbors. A number of local men joined the Princess Anne District Battalion in 1775 and fought at Kempsville and Portsmouth. Later in the war, Isle of Wight men served in the 7th, 8th, and 9th companies of the 4th Virginia Regiment of Foot. No major battles were fought in Isle of Wight during the War of Independence, though British Lt. Col. Banastre Tarleton led a raid against the Isle of Wight courthouse in Smithfield in 1781. Tarleton succeeded in damaging the building, however, the court records were not lost to the attack, as they had recently been removed and hidden (King 1993:60-65).

3.7 EARLY NATIONAL PERIOD (1790–1829)

At the close of the Revolutionary War, residents across the state of Virginia entered a long period of social, political, and economic change. The rural economy based primarily in tobacco prior to the war was changed radically as farmland had been exhausted and the Capital moved to Richmond. It was not long before a small group of Virginians dedicated to "scientific agriculture" helped to usher in a new era of productive farming. In his series of essays entitled *Arator*, Caroline County's John Taylor demonstrated the benefits of four-field crop rotation, in which soils could be improved significantly by rotating corn,



wheat, fertilizer, and clover. Similarly, in the early 1820s, Edmund Ruffin publicized the effectiveness of marl in reducing soil acidity, a technique that could triple the productivity of Tidewater soils. Other agricultural improvements included contour plowing to reduce erosion, cast iron plows, threshing machines, and corn shellers (Kaplan 1993:87-88).

Despite the obvious benefits of the transition from tobacco to grain crops, the farming methods of the late eighteenth and early nineteenth centuries continued to have a deleterious effect on exhausted soils. Under the traditional three-crop rotation system, a field first would be planted in corn, the following year in wheat, then left unplowed the third year to provide grazing for cattle and hogs. Recognizing the need for improved agricultural practices, Loudoun County farmer John A. Binns spearheaded the agricultural reform movement in Virginia. His 1803 Treatise on Practical Farming, which won the admiration of President Thomas Jefferson, outlined a formula for improving crop yields that would come to be known as the “Loudoun System.” In his widely read book, Binns recommended deep plowing, the use of gypsum to restore soil productivity, and revising the old crop rotation pattern to include a third year of clover (Poland 1976:84-88).

The first federal census of 1790 recorded that Isle of Wight County had a total population of 9,028, including 4,786 (53.0 percent) whites, 3,867 (43 percent) black slaves, and 375 (4 percent) free blacks. The total population of Isle of Wight grew little between 1790 and 1830, when county residents numbered 10,517. The number of free blacks, however, increased more than 300 percent over this same period (King 1993:139). During this period, Isle of Wight made the transition from an economy predominantly reliant upon tobacco as the cash crop to one characterized by diversified farming and the exploitation of the county’s timber resources. The most important local products now included wheat, corn, oats, Irish potatoes, sweet potatoes, peas, beans, hogs, and forest products. By the 1830s, Isle of Wight farmers were also growing enough cotton to support two local factories (King 1993:198).

3.8 ANTEBELLUM PERIOD (1830–1860)

From 1830 to 1860, the population of Isle of Wight County remained virtually constant at around 5,000 inhabitants. Slavery was not as important to the social and economic makeup as in other Tidewater counties in the antebellum period, and Isle of Wight was also home to a significant number of free slaves before Emancipation. By 1860, there were 1,370 free blacks residing in the county; together they held 2,965 acres of land, a modest average of 44.25 acres per adult male (King 1993:146). Nevertheless, the institution of slavery differentiated Virginia from points north. Wealthy Virginians renewed their commitment to slavery. Other Anglo-Americans, however, became less likely to own slaves than during the earlier years of the Republic.

An agricultural and economic depression characterized much of this era, at least until the 1840s and 1850s. Wheat prices declined sharply. In addition, the completion of the Erie Canal opened the market to mid-western grains. Though agitation for the construction of canals had begun at the end of the previous century, it was not until 1833 that the Chesapeake and Ohio Canal opened from Harpers Ferry to Georgetown (Keller 2000:24).

In order to compete with and for western commerce, the State borrowed heavily to invest in railroad and road construction between 1840 and 1860 (Willis 1986:425). In general, farm economies prospered during the 1850s as wheat prices rose. This period also witnessed the introduction and general use of animal-powered agricultural machinery (Parker 1986:90).

3.9 CIVIL WAR (1861–1865)

Isle of Wight County's economy had never been heavily oriented toward slave labor, and many of its citizens questioned the wisdom of fighting a sectional conflict to protect what they perceived to be the interests of large slave owners. However, when war was finally declared, many Isle of Wight men willingly took up arms to defend the Confederacy, some joining the Surry Light Artillery Company, and others the Isle of Wight Grays, which became Company D of the 16th Virginia Infantry Regiment (King 1993:164-66).

When Federal Major General Benjamin Butler seized Newport News in May 1861, Confederate General Robert E. Lee quickly realized the threat posed to Suffolk, an important junction of the Southside railroad lines connecting the port of Norfolk with Petersburg and Richmond. Immediately Lee ordered local commander Brigadier General Benjamin Huger to strengthen the region's defenses, and to erect or expand a number of fortifications along the Nansemond River and the south side of the James River in Isle of Wight County. On May 14, 1862, several Federal gunboats came up the James, and fired on Fort Boykin, an important Southside fortification located on Burwell's Bay, several miles west of Smithfield. Overwhelmed by the longer range of the Union guns, the Confederate defenders of Fort Boykin abandoned the defenses, destroying their guns and the fort's buildings in the process. After this engagement, Huger withdrew his forces from the Southside forts, and it is likely that the battery near Ragged Island was abandoned by late May 1862 (Cormier 1989:22-23; King 1993:168- 174).

Isle of Wight County saw few direct military engagements during the course of the war, the most significant being the Battle of Smithfield of January 31−February 1, 1864, in which a minor Union assault against the town was repulsed by its Confederate defenders. Living in a sort of no-man's-land, Isle of Wight's citizens were harried by frequent Federal cavalry raids, which frequently resulted in the appropriation of supplies and the destruction of property. An 1864 resolution of the county's justices succinctly outlined the hardships faced by Isle of Wight citizens during the war years:

> Whereas on account of the exposed condition of the county, being beyond the lines of the Confederate Army and subject to frequent and destructive raids of the enemy and the difficult and embarrassed communication with other sections of the state, our people, in a great measure, are dependent upon their own resources for an adequate supply of the necessities of life. And whereas, on account of the loss of almost our entire slave population, and the loss of a number of our free labor, and the conscription of white men between the ages of eighteen and forty-five to recruit the ranks of our armies, there is a great scarcity of productive labor, and whereas any further extension of conscription within the limits of this county will but result in the paralyzing of production and great suffering and hardships upon those who will be left at home...all other business is

> suspended in the county and, our people with scarcely an exception, are engaged in the cultivation of the soil (King 1993:179-80).

3.10 RECONSTRUCTION AND GROWTH (1866–1916)

Four years of civil war also had a devastating effect on Isle of Wight County, though it certainly suffered less than other parts of the Commonwealth. The county was left poorer in the wake of the conflict: agricultural life was hampered by the lack of draft animals and the poor condition of long-neglected fields; and it was difficult for most former slave owners to come to terms, both emotionally and financially, with emancipation. The county's population also dropped considerably in the immediate postwar years. In 1860, Isle of Wight's residents numbered nearly 10,000; by 1870, the population had dropped by almost 20 percent, to 8,320. After the war, both black and white residents left Isle of Wight in large numbers, many seeking work in nearby cities. Physically, economically, socially, and politically, the landscape of the county had been irrevocably altered in a short period of time (King 1993:139, 146).

Agricultural changes in Isle of Wight County, including the remarkable growth of peanut and soybean production, spurred population growth in the county toward the end of the nineteenth century, and by 1890 the county's population had well exceeded its pre-war levels. In the early twentieth century, Isle of Wight farmers profited from an expanding truck-farming market, supplying the growing cities of Newport News and Norfolk with a variety of fresh fruits and vegetables. The meat packing industry also grew considerably during this period, introducing the famed "Smithfield ham" to a national market (King 1993).

3.11 WORLD WAR I TO WORLD WAR II (1917–1945)

This era also saw frequent and rapid change in Isle of Wight County. For example, electric power became available to the majority of rural residents after 1939, when the Community Electric Cooperative first began raising power lines. But, perhaps the most significant local development witnessed during this period was the construction of the James River Bridge, officially opened by President Calvin Coolidge on November 17, 1928. Virtually overnight, the bridge ended Isle of Wight's relative isolation from Hampton Roads' growing urban centers. County businessman and booster Albert Sidney Johnson was instrumental in getting the main north-south U.S. highway (Route 17) routed through Isle of Wight via the James River Bridge and across the new Crittenden and Nansemond River bridges to Portsmouth and Norfolk. Initially the bridge tolls were high enough to discourage daily commuting to the Peninsula, but ready access to the region's cities still proved a significant stimulus to the local economy, despite the onset of the Depression (King 1993:214 and 227-28).

3.12 THE NEW DOMINION (1946–PRESENT)

Isle of Wight grew at an unprecedented rate after the Second World War, and today the county has a total of 28,500 residents, more than double the population at the turn of the twentieth century. In 1975, the state took over the James River Bridge and removed the tolls; as a result, Isle of Wight County quickly developed into a bedroom community of Newport News, with residential developments springing up along



the Route 17 corridor. Despite this increasing residential growth, the majority of Isle of Wight County remains predominantly rural in character (King 1993).



4.0 HISTORIC MAP REVIEW

Historic maps were reviewed as part of the background research conducted for the archaeological survey. Online map repositories, including the Library of Congress, the United States Geological Survey (USGS) Historical Topographic Map Explorer, the online David Rumsey Map Collection hosted by Cartography Associates, and state and county maps of Virginia compiled online at www.mapgeeks.org were examined to identify historic maps which depict the Project Area. The details and observations from this review are summarized in Tables 2 and 3.

Table 2 Summary of Observations for Historic Maps

Figure	Year	Observations, Property and Adjoining Sites
3	1624	John Smith's early map of Virginia depicts the general vicinity of the Project Area as being located within the territory of the Powhatan, in the wider vicinity of the Native American village of the Warrosquoyacke. However, the map provides no details for the immediate Project Area vicinity.
4	1755	This map illustrates the general location of the Project but does not offer significant detail. The wider region includes major waterways, roads, towns, and plantations, often located along the James River.
5	1781	This map illustrates the marches of Lord Cornwallis through the Project Area vicinity during the American Revolution. One marching route was located south of the Project Area; however, three are no details depicted for the Project Area itself. Major waterways, towns, and plantations are shown in the wider region.
6	1827	Major waterways and roadways are depicted on this map as well as Smithfield Courthouse to the northwest of the Project Area. In the wider region, churches and towns are also shown. However, the map does not provide any detail for the Project Area vicinity.
7	1864	This map appears to depict the junction near the Project Area, as well as its location in relation to Isle of Wight Court House. A stream is shown in the immediate vicinity of the Project Area, which is depicted as open land with small areas of woodland in the general vicinity. Farmsteads are shown along roadways in the wider region.
8	1891	This map depicts major waterways and roadways as well mills, churches, and farmsteads. Farmsteads often include landowner or resident names. While there is no detail provided for the Project Area, the nearby intersection is shown as are farmsteads in the immediate vicinity.

Table 3 Summary of Observations for USGS Topographic Maps

Figure	Year/Quad	Scale	Observations, Property and Adjoining Sites
9	1919 Smithfield, Virginia	1:62,500	This map depicts the Project Area vicinity as primarily rural with sparse occupation. Roadways are shown adjacent to the Project Area, which is depicted as open land with woodland at the northern end. A structure is shown near the southwest corner of the Project Area in the general location of the barn which stands there today.
10	1945 Smithfield, Virginia	1:31,680	This map continues to show the Project Area vicinity as predominately agricultural with sparse occupation. A structure is still show in the general location of the extant barn just southwest of the Project Area. The Project Area itself is shown as entirely open with woodland to the east and north.

HISTORIC MAP REVIEW



Figure 3 Detail from *Virginia Discovered and Described*, Depicting the Project Area Vicinity (Smith and Hole 1624; Library of Congress Geography and Maps Division).

HISTORIC MAP REVIEW

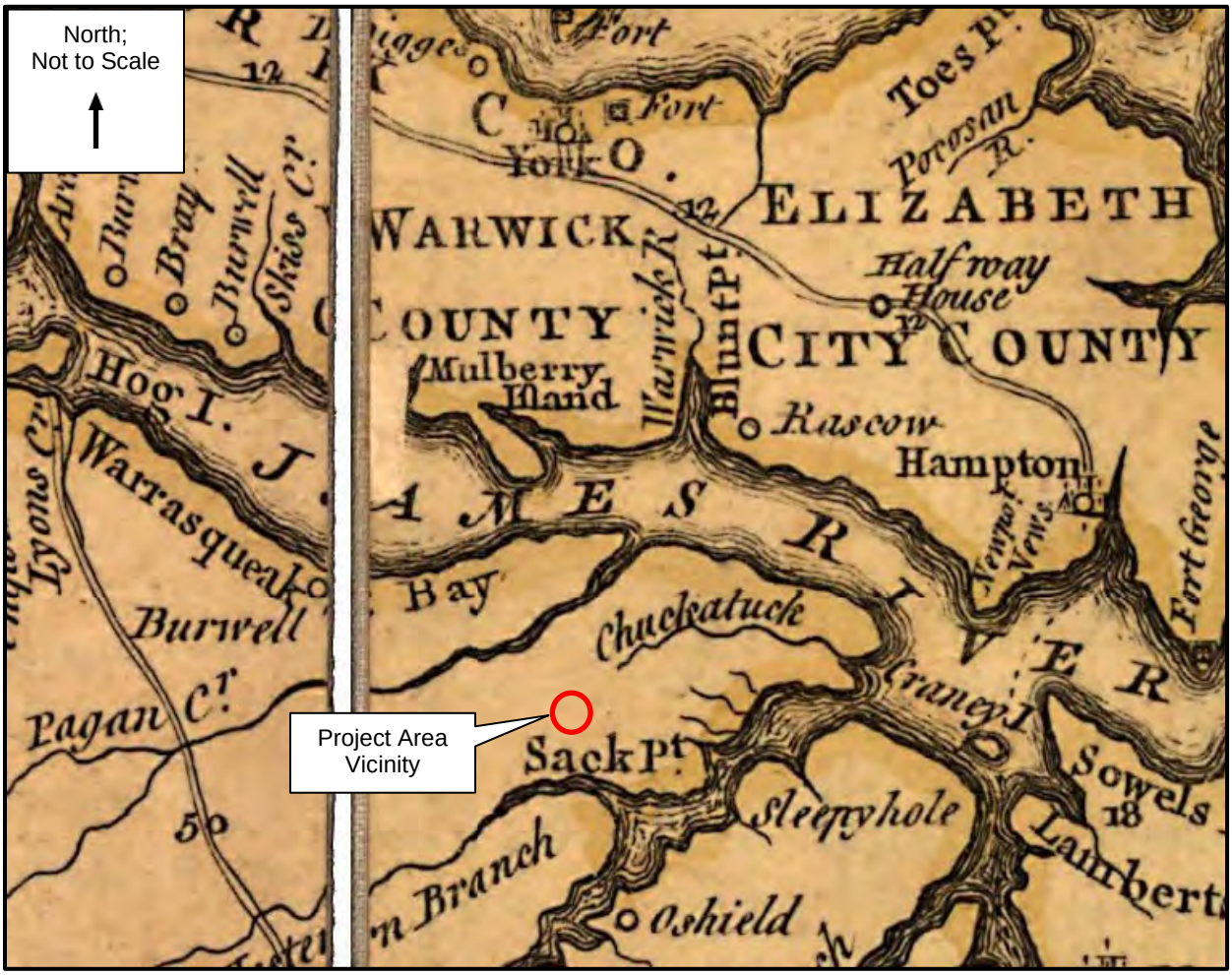


Figure 4 Detail of *A Map of the Inhabited Part of Virginia, Containing the Whole Province of Maryland with Part of Pensilvania, New Jersey and North Carolina* Depicting the Project Area Vicinity (Fry et al. 1755; Library of Congress Geography and Map Division).

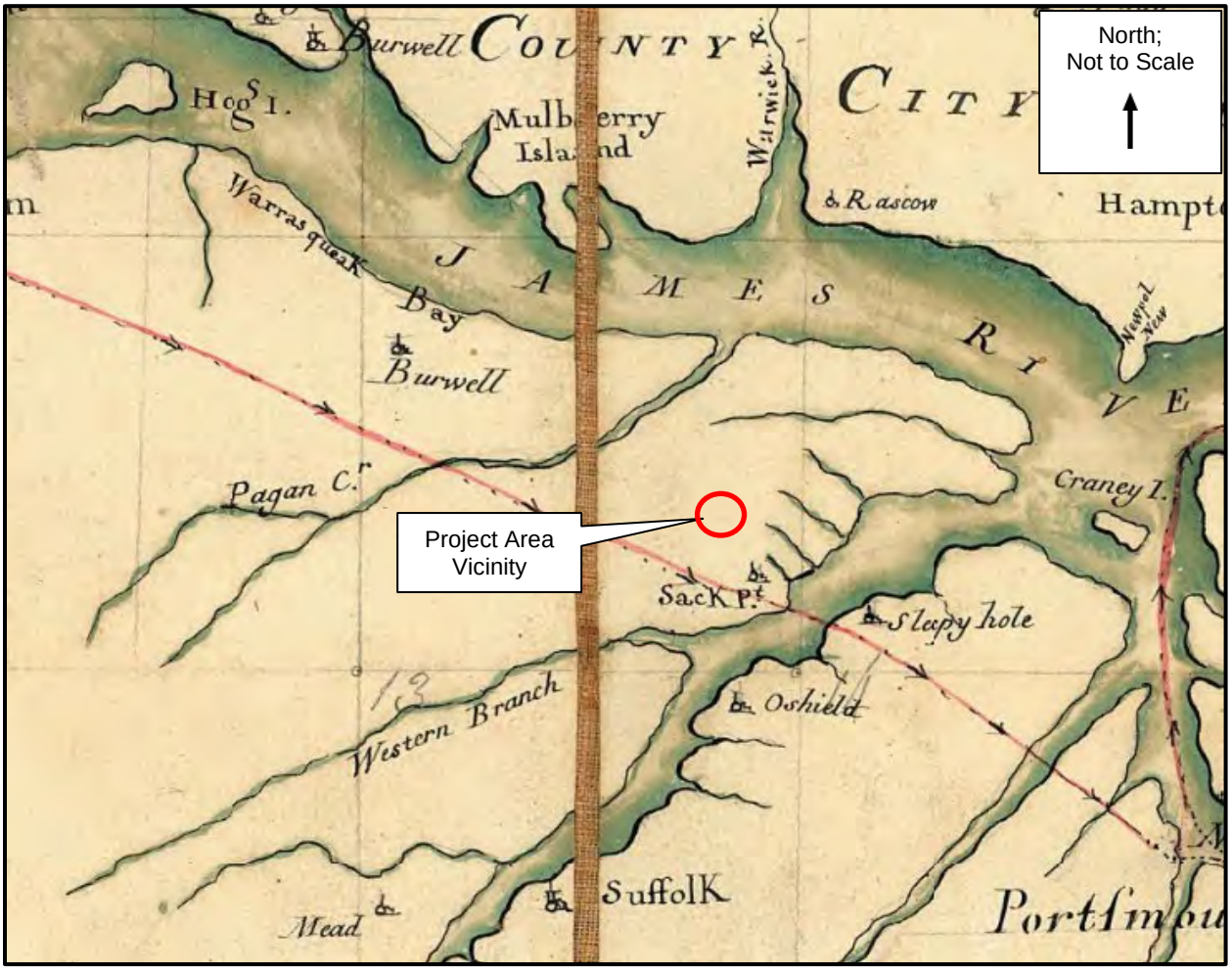


Figure 5 Detail of *Campagne en Virginie du Major General m'is de LaFayette…* Depicting the Project Area Vicinity (Chesnoy and Lafayette 1781; Library of Congress Geography and Map Division).

HISTORIC MAP REVIEW

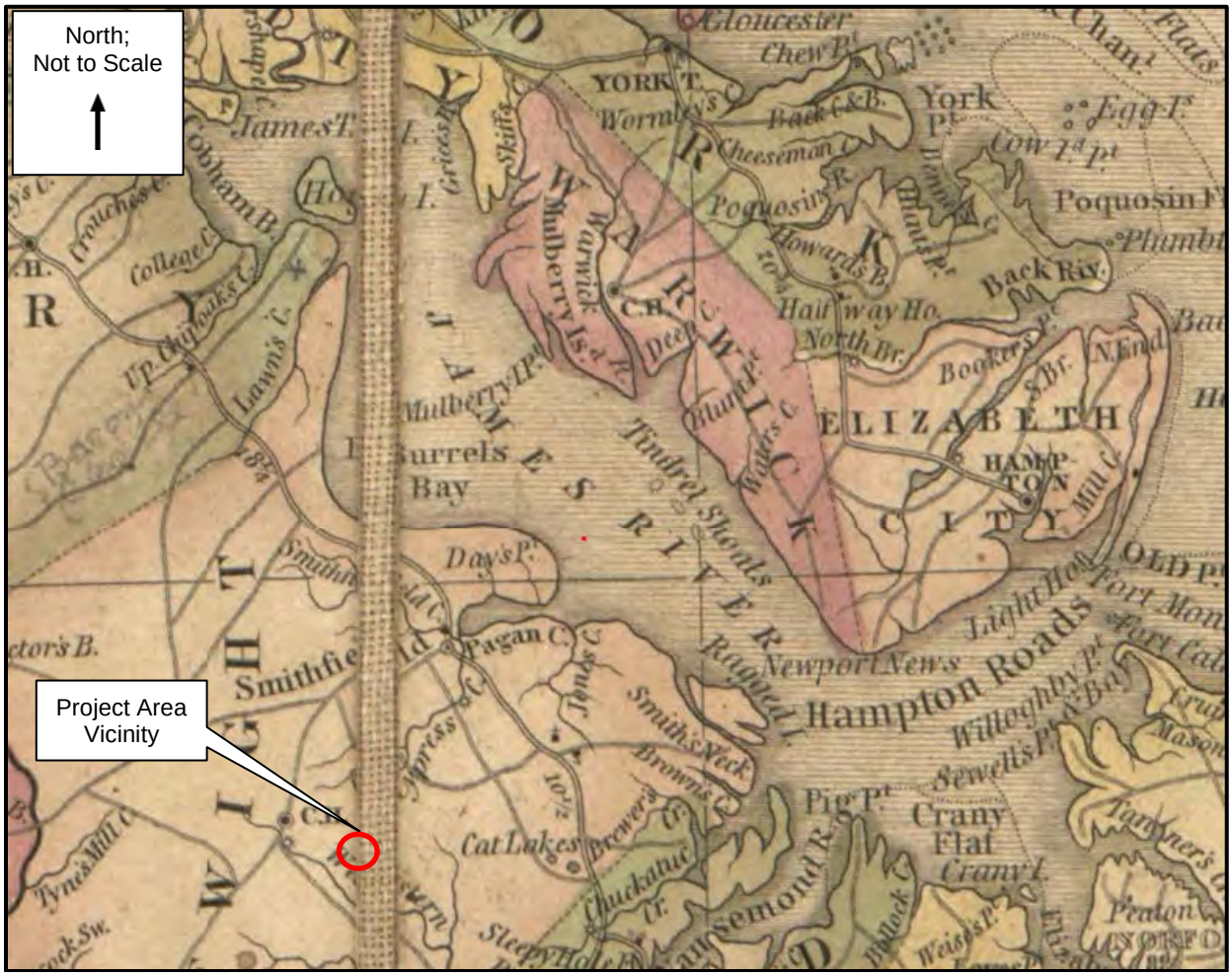


Figure 6 Detail of *A Map of the State of Virginia…* Depicting the Project Area Vicinity (Böÿe 1827; Library of Congress Geography and Map Division).

HISTORIC MAP REVIEW

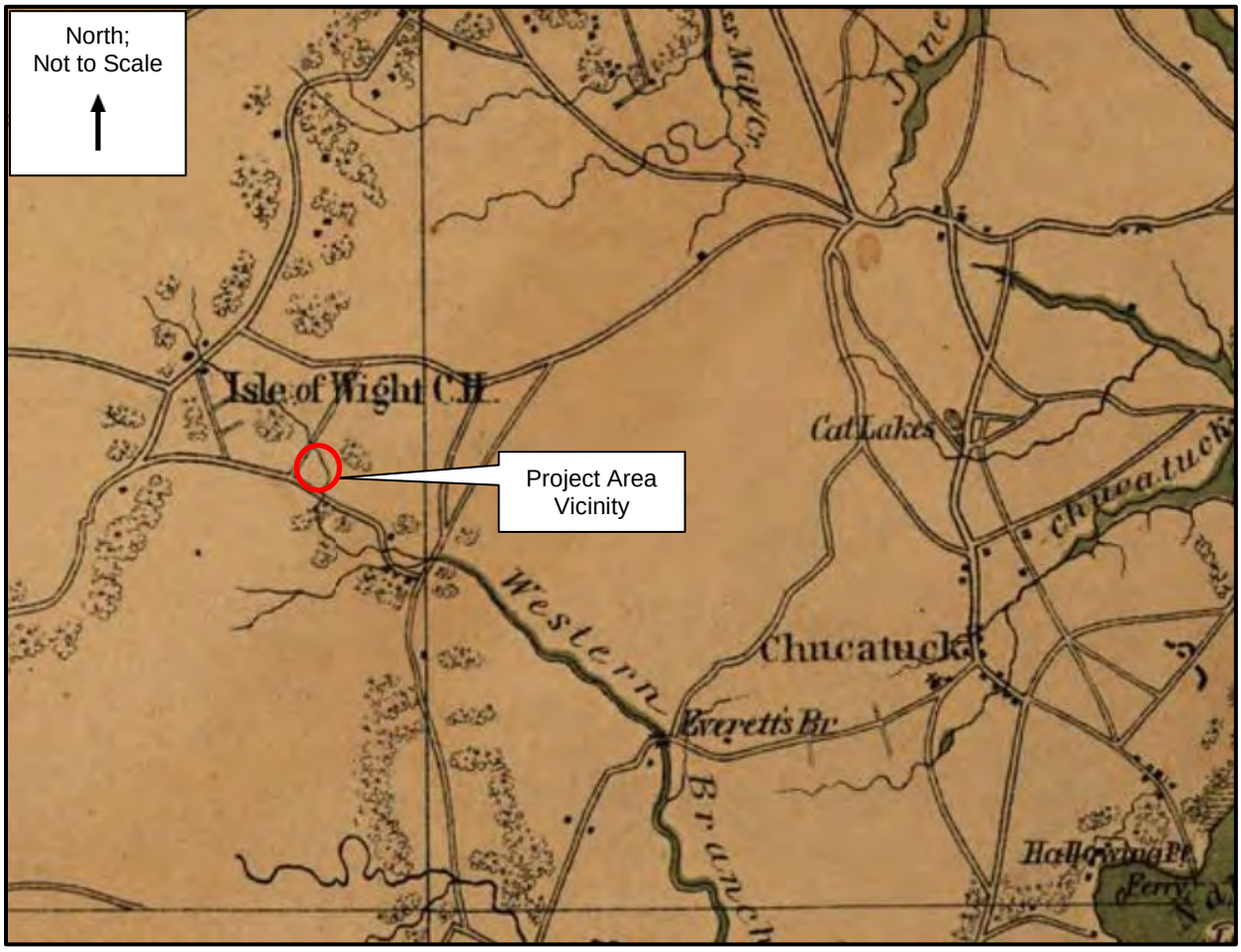


Figure 7 Detail of *Military map of south-eastern Virginia* Depicting the Project Area Vicinity (Lindenkohl 1864; Library of Congress Geography and Map Division).

HISTORIC MAP REVIEW

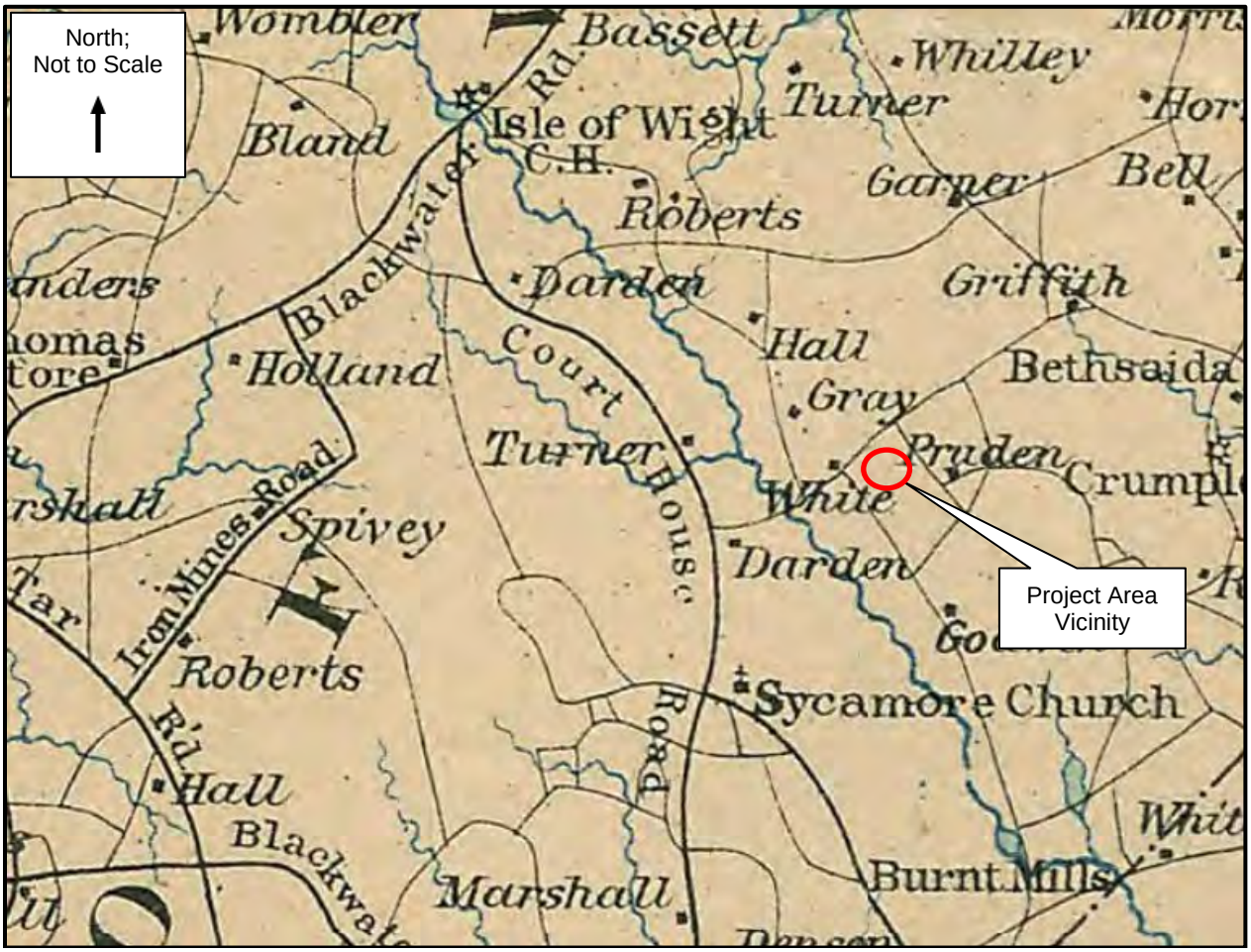


Figure 8 Detail of *Preliminary map of a part of the south side of James River, Va.: from surveys and reconnaissances* Depicting the Project Area Vicinity (Campbell et al. 1891; Library of Congress Geography and Map Division).

HISTORIC MAP REVIEW

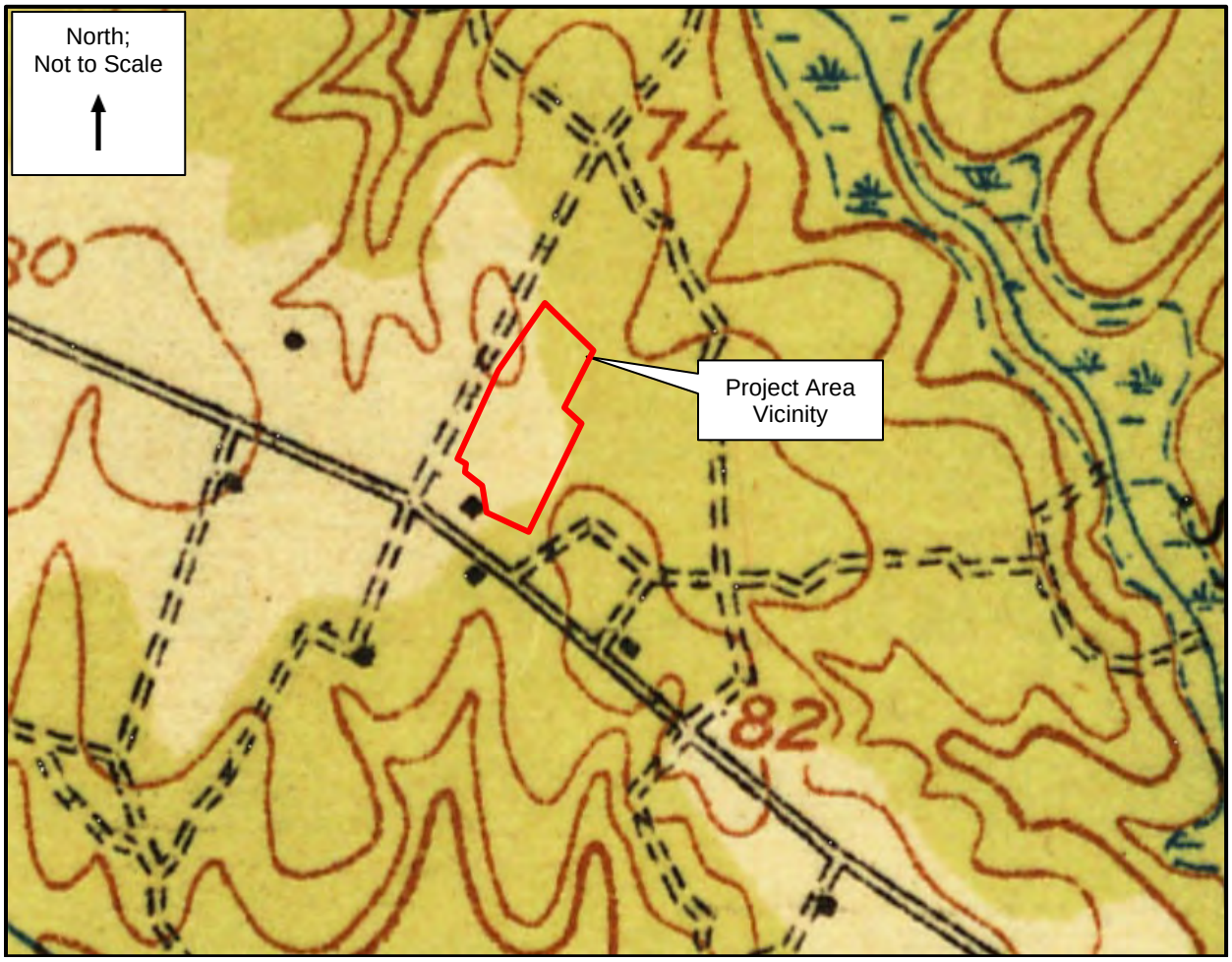


Figure 9 Detail of the 1919 *Smithfield, Virginia* 7.5 Minute Topographic Map Depicting the Project Area (USGS 1919; http://historicalmaps.arcgis.com/usgs/, Accessed 2023).

HISTORIC MAP REVIEW

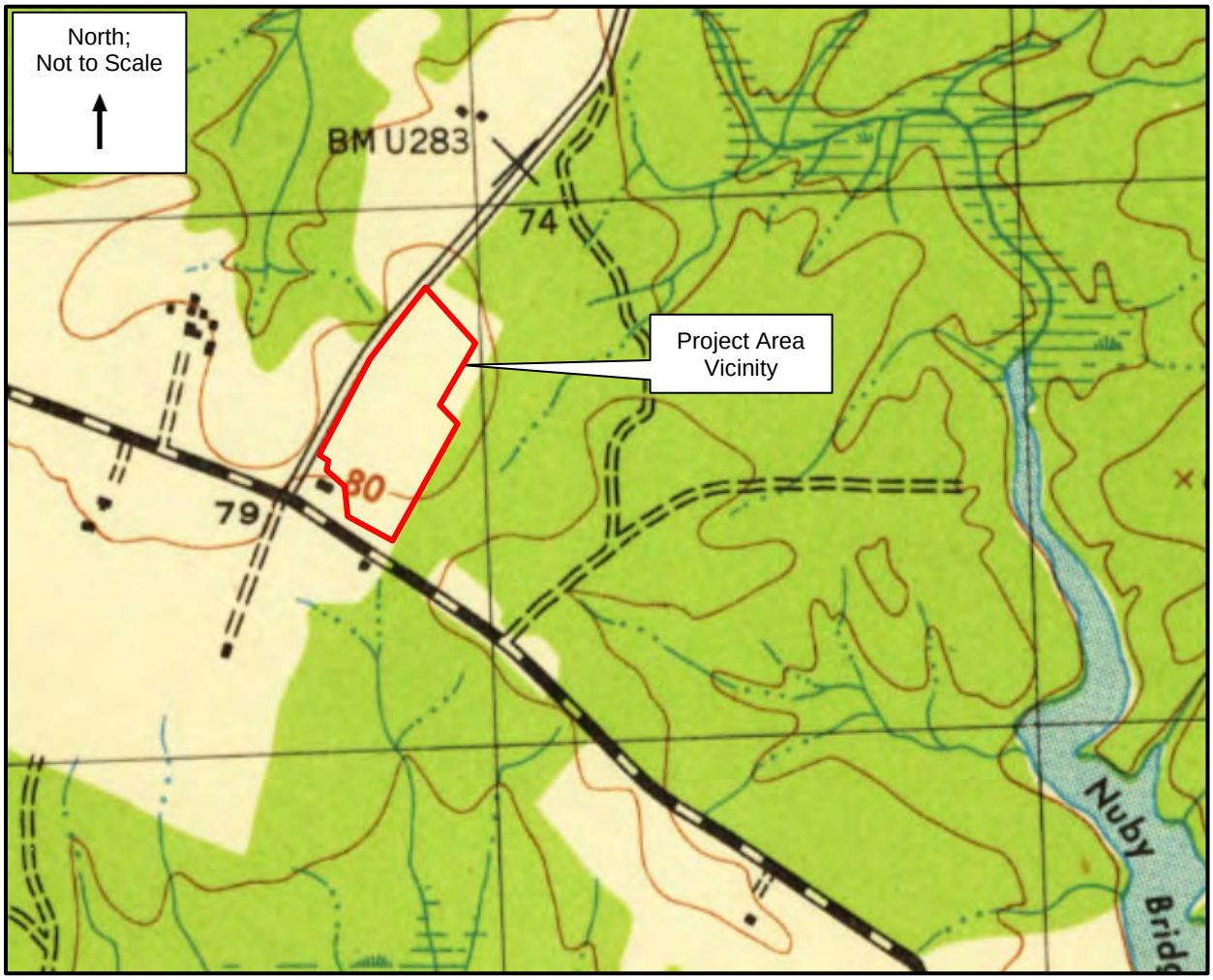


Figure 10 Detail of the 1945 *Smithfield, Virginia* 7.5 Minute Topographic Map Depicting the Project Area (USGS 1945; http://historicalmaps.arcgis.com/usgs/, Accessed 2023).

5.0 RESEARCH DESIGN

5.1 OBJECTIVES

The Phase I cultural resources survey was designed to locate and identify archaeological resources within the Project Area, as well as to document any standing structures 50 years of age or older located within the Project Area and within a 0.5-mile radius of the Project Area. Stantec designed the survey to obtain sufficient information to make recommendations about the research potential of identified cultural resources based on the resource's potential eligibility for listing on the NRHP. A cultural resource is gauged to be significant if it meets at least one of four NRHP criteria:

A. Associated with significant events in the broad patterns of national history.

B. Associated with the lives of persons significant in our past.

C. Representative of a type, period, or method of construction, or the work of a master.

D. Capable of yielding important information about the past.

Criterion D typically applies to archaeological sites. In order to be capable of yielding important information about the past, generally a site must possess artifacts, soil strata, structural remains, or other cultural features that make it possible to test historical hypotheses, corroborate and amplify currently available information, or reconstruct the sequence of the local archaeological record.

5.2 PREVIOUS INVESTIGATIONS

5.2.1 Previous Cultural Resources Surveys

No previously conducted cultural resource surveys have occurred within the Project Area.

5.2.2 Archaeological Sites

No previously recorded archaeological sites are located within the Project Area. Four previously recorded archaeological sites are located within a 1-mile radius of the Project Area (Table 4; Figure 11). All four sites are historic and have been determined to be not eligible for listing on the NRHP.

Table 4 Previously Identified Archaeological Sites within a 1-Mile Radius of the Project Area

Resource	Resource Type	Association	Reference	NRHP Status
44IW0311	Medical Office	1900–1938	CHG 2019	Not Eligible (DHR 2019)
44IW0324	Farmstead	Late 19th to Early 20th c.	H&P 2021	Not Eligible (DHR 2022)
44IW0325	Outbuilding	Historic Unknown	H&P 2021	Not Eligible (DHR 2022)

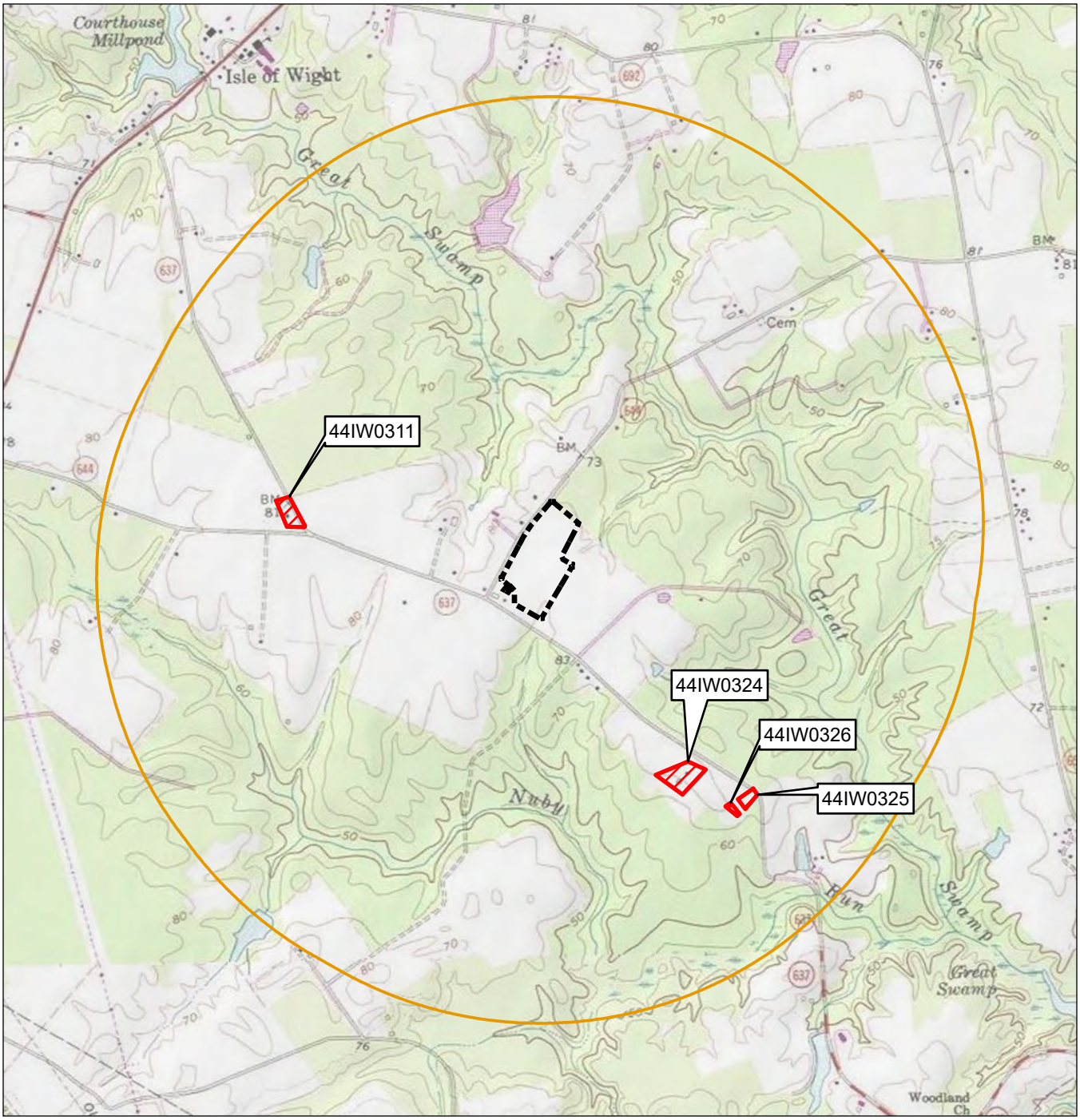
Resource	Resource Type	Association	Reference	NRHP Status
44IW0326	Artifact Scatter	Late 19th to Early 20th c.	H&P 2021	Not Eligible (DHR 2022)

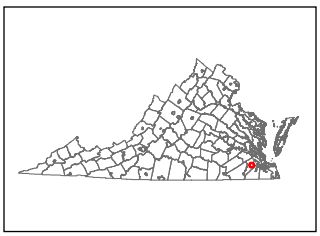
5.2.3 Architectural Resources

No previously identified architectural resources are located within the Project Area. Seven previously identified architectural resources are located within a 1-mile radius of the Project Area (Table 5; Figure 12). These resources include four houses ranging in date from 1798 to 1963, a cemetery, a farm, and a bridge. Two resources have been determined to be potentially eligible for listing in the NRHP (DH E#046-004 and #046-0021) and two resources have been considered eligible for listing on the NRHP for environmental review purposes only (DHR #046-5545 and #046-5547). The remaining three resources have been determined to be not eligible for NRHP inclusion.

Table 5 Previously Recorded Architectural Resources within a 1-Mile Radius of the Project Area

DHR #	Resource	Date	Reference	NRHP Recommendation
046-0004	Old Whitley Farm	1798	CHG 2019; Wiggins 1958	Potentially Eligible (DHR 2019)
046-0021	Seeds-Pierce House	1844	CHG 2019 Williams 1968; Wiggins 1958	Potentially Eligible (DHR 2019)
046-5310	Bridge #6045, Orbit Rd	c. 1945	VDOT 2011	Not Eligible (DHR 2011)
046-5545	Dwelling, 18402 Orbit Road	1906	CHG 2019	Eligible (DHR 2019)
046-5546	Dwelling, 18493 Orbit Road	1950	H&P 2021; CHG 2019	Eligible (DHR 2022)
046-5547	Whitley Family Cemetery	Pre-1865	CHG 2019	Not Eligible (DHR 2019)
046-5646	House, 18688 Orbit Road	1963	H&P 2021	Not Eligible (DHR 2022)





Project Area
1-Mile Buffer
Archaeological Site

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc. U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Topographic map © USGS 7.5 Minute Series Topographic Map, Smithfield, VA Quadrangle 1991

Stantec

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project
Dawood Engineering, Inc.
VAL035 Solar Project

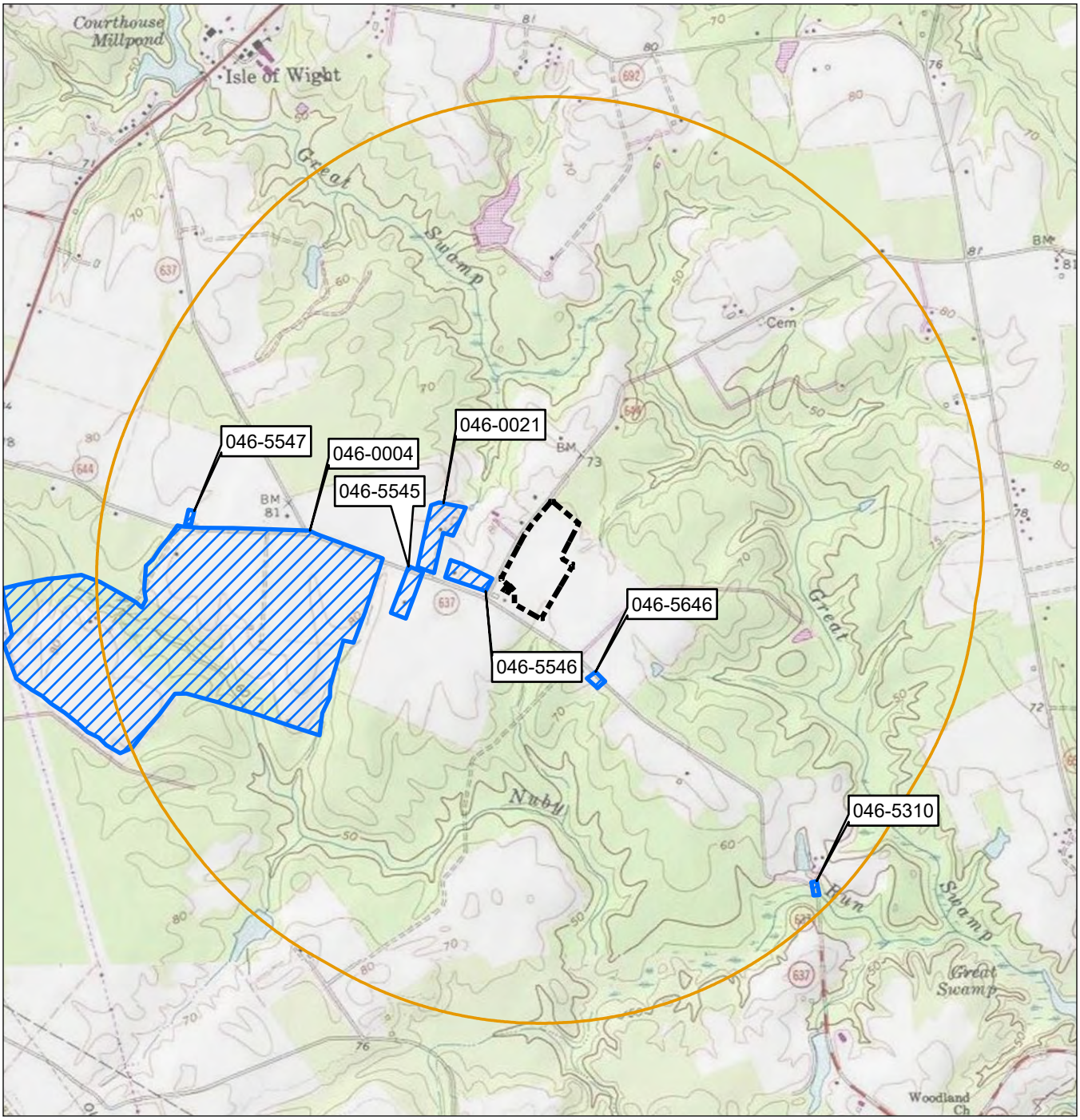
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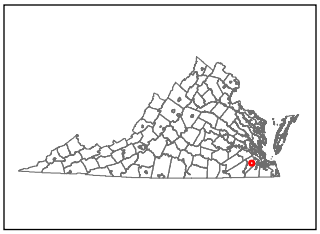
Figure No.
11

Title
Previously Identified Archaeological Sites within a 1-Mile Radius of the Project Area

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Project Area
1-Mile Buffer
Architectural Resource

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Stantec

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., U.S. Census Bureau, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Topographic map © USGS 7.5 Minute Series Topographic Map, Smithfield, VA Quadrangle 1991

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project
Dawood Engineering, Inc.
VAL035 Solar Project

195602610

Figure No.
12

Title
Previously Identified Architectural Resources within a 1-Mile Radius of the Project Area

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6.0 SURVEY METHODOLOGY

6.1 ARCHAEOLOGICAL SURVEY

6.1.1 Shovel Testing

Stantec field archaeologists conducted systematic pedestrian survey across the entire Project Area in conjunction with systematic shovel testing. Shovel tests were excavated at 50-foot intervals along 14 transects (Transects A–N) spaced 50 feet apart throughout the Project Area. Shovel testing was not conducted in areas exhibiting 15 percent or greater slope, that were wet or waterlogged, or exhibited obvious disturbances.

All shovel tests measured approximately 1.25 feet (15 inches) in diameter and were excavated to sterile subsoil. Soil from all shovel tests was passed through 1/4-inch mesh screen. For each excavated shovel test, the stratigraphic profile was recorded with complete descriptions using Munsell color designators (Munsell Color 1994) and U. S. Department of Agriculture soil texture terminology (Soil Survey Staff 1999).

- A (Topsoil or surface vegetation) – Organic or humus layer consisting of grass, leaf litter, or other surface materials.
- Ap (Plow Zone) – A horizon soils that have been impacted by plowing and agricultural practice; usually an organic layer that has formed through decomposition of A horizon soils mixed with leftover organic matter from agricultural practices.
- E (eluviated) – Leached of clay, minerals, and organic matter, leaving a concentration of sand and silt particles of quartz or other resistant materials – missing in some soils but often found in older soils and forest soils. Often interpreted as a transition layer between A and B horizon soils; often present in intact archaeological site settings and is representative of a living surface.
- B (B Horizon [Subsoil]) – Rich in minerals that leached (moved down) from the A or E horizons and accumulated here. Typically denoted as the culturally sterile B Horizon (Subsoil) as deposits tend to predate human occupation.

All pertinent data including: the site location, the location of features, any permanent landmarks, the topography, the vegetation, any disturbed areas, and the location of surface survey and subsurface tests was digitally collected utilizing ESRI's Collector for ArcGIS installed on Apple iPads enabled with GPS location services and supplemented by a Trimble R1 GPS Receiver. Field survey notes were collected by Stantec's Project Archaeologists and Crew Chief documenting daily progress, conditions, and access issues.

6.1.2 Definitions

This field survey used two designations for archaeological resources: the *archaeological site* and the *isolated archaeological find*. An *archaeological site* is regarded as any apparent location of human activity not limited to simple loss, casual or single-episode discard, and having sufficient archaeological evidence to indicate that further testing would produce interpretable archaeological data. Three artifacts related temporally or functionally within a spatially restricted area constitute an archaeological site (DHR 2017: Chapter 6, page 1). In contrast, an *isolated archaeological find* is defined as an area marked by surface indications and little else; containing three or fewer artifacts of a similar period; and/or representing an area reflecting simple loss, casual, or single-episode discard, all of which retain a low potential for providing additional interpretable archaeological data. By definition, archaeological resources of this type are not eligible for listing in the NRHP because they lack the ability to provide significant information about the prehistoric or historic past.

6.1.3 Laboratory Methods

Typically, all archaeological data and specimens collected during an archaeological survey are transported to Stantec's laboratory in Richmond, Virginia, for processing and analysis. However, no cultural material was identified during this investigation.

6.1.4 Expected Results – Archaeological Site Identification

Native American sites are generally found within 1,000 to 1,500 feet of a significant water source, on moderately well- to well-drained soils on low relief landforms. The Project Area is located across a relatively level to gently rolling landform between Great Swamp to the north and Nuby Run to the south and is in close proximity to the heads of three unnamed branches extending from these waterways. While no Native American archaeological sites have been previously identified within a 1-mile radius of the Project Area, this may reflect a lack of archaeological survey in the region rather than a lack of sites. However, more than half of the Project Area comprises Yennesee fine sandy loam, which is somewhat poorly drained, and standing water was present near the center of the Project Area. This may suggest that while the Project Area could have been attractive for short-term use (i.e., resource procurement, temporary camping, etc.) that it may have been poorly suited for long-term occupation. Therefore, there is a low to moderate probability for the Project Area to contain Native American resources.

The Project Area is situated within a fallow corn field. As historic map review has shown the vicinity of the Project Area has largely reminded rural and undeveloped throughout its documented history. Much of the Project Area comprises relatively level, moderately well-drained land; however, more than half of the Project Area includes somewhat poorly drained soils and standing water was observed near the central portion. Four previously identified historic archaeological sites are within 1 mile of the Project Area. Those previously recorded historic sites with recorded temporal affiliations date generally from the late nineteenth to the twentieth century. All four sites, which include a medical office, a farmstead, an outbuilding, and an artifact scatter, are located along Bowling Green Road (Route 644). Historic map review has provided little to no evidence of occupation within the Project Area itself, though a structure



does appear just outside of the Project Area in the early twentieth century. The Project Area appears to have been utilized primarily as agricultural land for much of the nineteenth and twentieth centuries and the somewhat poorly drained nature of much of the Project Area may have made it unattractive as a residential location. There is a low to moderate probability of identifying additional historic resources within the Project Area. Should sites be identified they are likely to date to the nineteenth and twentieth centuries.

6.2 ARCHITECTURAL SURVEY

Architectural survey included systematic identification and recordation of historic architectural resources dating to 50 years or older located within the Project Area within a 0.5 -mile radius of the Project Area. The documentation effort consisted of resurveying and re-evaluating previously recorded resources for NRHP eligibility and newly surveying architectural resources dating from 1973 or earlier. The documentation for both newly and previously recorded resources included noting architectural features on designated survey forms for each building/structure visible on the property and preparing sketch maps depicting the primary resource in relation to secondary resources, if any, and prominent landscape features. Additionally, all visible resources present on the property were photographed. The Phase I architectural survey was conducted from public right-of-way (ROW) only unless permission was specifically granted by the owner at the time of the field survey. In some cases, resources were not visible or were only partially visible from the public ROW due to vegetation and/or distance and therefore limited architectural survey of those resources was possible.

6.2.1 Definitions

Architectural resources include all standing structures or buildings that are 50 years or older. Potential eligibility of architectural resources requires that one or more of the National Register of Historic Places Criteria, such as association with significant events in the broad patterns of national history (Criterion A), association with the lives of persons significant in our past (Criterion B), and/or representative of a type, period, or method of construction, or the work of a master (Criterion C), be met. Where individual structures do not meet these National Register criteria, but constitute a cohesive group of related buildings, a potential NRHP district may be considered.

6.3 REPORT PREPARATION

The results of the archival research, fieldwork, and laboratory analysis were synthesized and summarized within this report. The report describes the results of each of these facets of the Phase I survey research and is illustrated by selected maps and drawings. Appendix A presents architectural resource survey mapping and Appendix B presents architectural V-CRIS forms. Appendix C presents resumes for key personnel.



7.0 ARCHAEOLOGICAL SURVEY RESULTS

7.1 INTRODUCTION

The Project Area is located northeast of the junction of Orbit Road (Route 637) and Bowling Green Road (Route 644) and comprises a relatively level corn field that appeared fallow. Light grass was present over the majority of the Project Area though ground visibility was greater than 50 percent in some locations. Standing water was present in low lying locations within the Project Area. An infilled drainage ditch, which appears to have been utilized for access, extends southwest to northeast through the eastern portion of the Project Area (Figures 13–20).



Figure 13 View from the Southwestern Corner of the Project Area; View to the North.



Figure 14 View from Northwestern Corner of the Project Area; View to the Southeast.



Figure 15 View from Northeastern Corner of the Project Area; View to the East.



Figure 16 View from Central Portion of the Project Area; View to the South.



Figure 17 View from Southeastern Corner of the Project Area; View to the North.

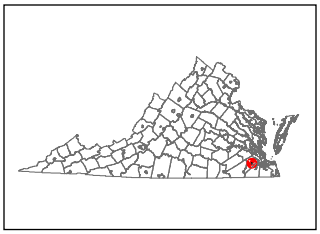


Figure 18 Ground Visibility in Western Portion of the Project Area; View to the South.



Figure 19 Standing Water in the Western Portion of the Project Area; View to the South.





Primary Negative
Primary Not Dug
Project Area
5-Foot Contour

0 100 200 Feet

(At original document size of 8.5x11)
1:2,400

N

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., Stantec, U.S. Census Bureau, VDOT
3. Orthoimagery © Virginia Geographic Information Network (VGIN)

Stantec

Project Location
Isle of Wight County, Virginia

Prepared by ECL on 2023-03-03
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

Client/Project 195602610
Dawood Engineering, Inc.
VAL035 Solar Project

Figure No.
20

Title
Archaeological Base Map

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7.2 SHOVEL TESTING

A total of 320 shovel tests were excavated at 50-foot intervals along 14 transects (Transects A–N) spaced 50 feet apart throughout the Project Area. One shovel test (STP K14) was not excavated due to its location in standing water. Shovel testing also did not occur within the in-filled ditch/access extending southwest to northeast through the eastern portion of the Project Area. No shovel tests were positive for cultural material and no new isolated archaeological finds or new archaeological sites were recorded during the investigation (see Figure 20).

A representative shovel test profile for the majority of the Project Area consisted of two strata (STP H10). Stratum I was characterized as a layer of 10YR4/2 dark grayish-brown sandy clay loam (Ap Horizon), which extended in depth from approximately 0 to 0.4 foot below ground surface. Underlying Stratum I was Stratum II, a layer of 10YR5/3 brown sandy clay (Subsoil). Stratum II was excavated from approximately 0.4 to 0.8 foot below ground surface (Table 6).

Table 6 STP H10 Soil Profile

Stratum	Depth (ft.)	Color	Soil Type/Texture	Interpretation
I	0−0.4	10YR4/2 Dark Grayish Brown	Sandy Clay Loam	Ap Horizon
II	0.4−0.8	10YR5/3 Brown	Sandy Clay	Subsoil

7.3 ARCHAEOLOGICAL RESULTS

No shovel tests were positive for cultural material and no new isolated archaeological finds or new archaeological sites were recorded during the Phase I investigation. ***No further archaeological investigations are recommended for the Project Area.***

8.0 ARCHITECTURAL SURVEY RESULTS

The Phase I architectural survey was conducted by Stantec on March 8, 2023. The documentation of these historic resources was conducted pursuant to the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* [United States Department of the Interior {USDI} 1983]) and state (*Guidelines for Conducting Historic Resources Investigations in Virginia* [DHR 2017]) guidelines.

8.1 PHASE I ARCHITECTURAL SURVEY

One newly recorded and five previously recorded individual resources were located within the architectural Survey Area (Tables 7 and 8). Four of the previously recorded resources have been determined potentially eligible for listing in the NRHP. Two have been determined by DHR to be potentially eligible for listing (DHR #046-0004 and #046-0021) and two are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546). These four resources were surveyed in 2019 and were not resurveyed as part of the current project but were evaluated for potential visual effects of the proposed Project to each resource. One previously recorded resource was determined not eligible for listing in the NRHP (DHR #046-5646). The resource was also surveyed in 2019 and was not resurveyed during the current investigation (Table 7). The surveyed resources consisted of farms and single dwellings with associated outbuildings.

Table 7 Previously Recorded Architectural Resources within the Survey Area

DHR #	Resource Name	Date	NRHP Status/ DHR Recommendation Prior to Survey
046-0004	Cedar Acres, 12452 Redhouse Road	1798	Determined Potentially Eligible in 2019
046-0021	Seed-Pierce House, 18421 Orbit Road	1844	Determined Potentially Eligible in 2019
046-5545	House, 18402 Orbit Road	1906	Considered Eligible for Environmental Review Purposes in 2019
046-5546	House, 18493 Orbit Road	1950	Considered Eligible for Environmental Review Purposes in 2019
046-5646	House, 18688 Orbit Road	1963	Determined Not Eligible for Listing in the NRHP in 2019

Table 8 Newly Recorded Architectural Resources within the Architectural Survey Area

DHR #	Resource Name	Date
046-5714	House, 18668 Orbit Road	1973

The architectural style classifications used to categorize the resources surveyed conform to those accepted by the NRHP and detailed in *A Field Guide to American Houses* (McAlester and McAlester 1998). The single domestic resource surveyed was constructed in the Ranch style.

8.1.1 Dwelling Types

8.1.1.1 Ranch-Style

The Ranch-style, the popularity of which is evident in the many planned developments of the 1950s and 1960s, originated in 1930s California. The style became dominant in the 1940s with the increased dependence on the automobile. Prior to the 1940s, many urban and suburban dwellers resided in compact houses on small lots and walked to the streetcar lines. The increasing popularity of the automobile allowed people to move further out from the city and indulge in more expansive lots. The Ranch house's design allowed a lateral expansion of dwellings, emphasizing the façade, and could fit on larger residential lots with more open space between houses (McAlester and McAlester 1993:479).

The Ranch-style house (DHR #046-5714), which is typical of its style, was constructed in 1973 and is a one-story, five-bay, frame dwelling with engaged carport. The exterior is brick veneer on the facade with vinyl siding on the remaining elevations. The dwelling is supported by a concrete block foundation and the cross-gable roof has been clad in asphalt shingles. The dwelling also features a modern entry door and single and paired six-over-six vinyl sash windows (Figure 21). A mid-to late twentieth century well house and poured concrete well were also located on the property.



Figure 21 Ranch-Style Dwelling (DHR #046-5714), 18668 Orbit Road, View Looking South.

8.2 VISUAL EFFECTS EVALUATION

An effects evaluation, in addition to the Phase I architectural survey, was conducted for NRHP-listed, eligible, and potentially eligible properties which may be affected by the proposed Project. Four properties were assessed for effects and include the potentially eligible Cedar Acres (DHR #046-0004) and Seeds-Pierce House (DHR #046-0021) and two dwellings which are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546).

8.2.1 Cedar Acres (DHR #046-0004)

The house on the property of Cedar Acres was built in two sections. The original section, according to the previous survey, was constructed in 1798 as a one-and-a-half-story, two-bay, frame dwelling with the two-story, three-bay section added in the mid-nineteenth century. The exterior is sided in weatherboards and the side gable roof in standing seam metal. Large, exterior end brick chimneys are located off each gable end. The dwelling also features a single-bay, hipped-roof porch sheltering the front entry and six-over-nine, nine-over-nine, and three-over-six wood sash windows (Figure 22). Secondary resources on the property include a mid-nineteenth century shed, and four turn-of-the-twentieth century barns. The resource was determined potentially eligible in 2019 by DHR as an example of rural vernacular architecture which reflects the agricultural development of this area of Isle of Wight County (DHR Site Files).

The dwelling and secondary resources on the property are located back from the road within an open, relatively level landscape (Appendix A). A large tree is located to the northwest of the dwelling with an area of woods to the south/southwest. While the buildings on the property are located outside of the 0.5-mile radius of the Project Area, the landscape is open and unobstructed to the northeast looking towards the proposed solar field. At its closest point, the northeastern corner of the property is approximately 1,568 feet to the southwest of the proposed Project and will have a direct view of the solar panels on the parcel (Figures 23 and 24). Based on the fieldwork, it is anticipated that the proposed Project will have an **Adverse Effect** on the NRHP potentially eligible Cedar Acres (DHR #046-0004).



Figure 22 Cedar Acres (DHR #046-0004), View Looking Southwest.



Figure 23 View from Cedar Acres (DHR #046-0004), Looking East towards Solar Parcel from Viewpoint (VP) 5.



Figure 24 View from Cedar Acres (DHR #046-0004), Looking East towards Solar Parcel from VP 6.

8.2.2 Seeds-Pierce House (DHR #046-0021)

The Seeds-Pierce House (DHR #046-0021) was constructed around 1844 and is a two-story, three-bay, frame dwelling with weatherboard siding and a gable roof clad in asphalt shingles. A large, shouldered, exterior brick chimney with corbeled cap is located off each gable end and a raised single-bay entry porch. The dwelling is supported by a raised, brick foundation and is also raised on brick piers. A small, shed-roofed porch extends from the northwestern gable end. Fenestration includes six-over-six sash windows (Figure 25). Secondary resources on the property include a mid-twentieth century barn. The resource was determined potentially eligible in 2019 by DHR as an example of rural vernacular architecture which reflects the agricultural development of this area of Isle of Wight County (DHR Site Files).

The dwelling and secondary resources on the property are located back from the road within an open, relatively level landscape (Appendix A). Several large trees are located behind the house and a post-and-rail fence encloses a pasture to the southeast of the dwelling. At its closest point, as mapped in the DHR's Virginia Cultural Resources Information System (V-CRIS), the property is approximately 821 feet to the northwest of the proposed Project and will have a direct view of the solar panels on the parcel (Figure 26). Based on the fieldwork, it is anticipated that the proposed Project will have an **Adverse Effect** on the NRHP potentially eligible Seeds-Pierce House (DHR #046-0021).



Figure 25 Seeds-Pierce House (DHR #046-0021), View Looking North.



Figure 26 View from Seeds-Pierce House (DHR #046-0021), Looking East towards Solar Parcel from VP 3.

8.2.3 House (DHR #046-5545)

The house, constructed in 1906 according to tax data, is a two-story, five-bay, vernacular frame dwelling with aluminum siding and a metal-clad side gable roof. A one-story, five-bay, hipped-roof porch with turned wood posts extends across the façade and a two-story ell with one-story wing extends from the rear. The dwelling also features interior end brick chimneys with corbeled caps (Figure 27). Secondary resources on the property include two mid-twentieth century domestic outbuildings of unspecified function and a mid-twentieth century animal shelter. The resource was determined eligible for the purposes of environmental review in 2019 by DHR and is an example of mid-twentieth century rural architecture which reflects the agricultural development of this area of Isle of Wight County (DHR Site Files).

The dwelling and secondary resources on the property are located back from the road within an open, relatively level landscape (Appendix A). Several large trees are located around the house with a tree line to the northwest and shrubs along either side of the driveway. Beyond the immediate area of the dwelling are open agricultural fields. At its closest point, the property is approximately 1,023 feet to the southwest of the proposed Project and will have a direct view of the solar panels on the parcel (Figure 28). Based on the fieldwork, it is anticipated that the proposed Project will have an **Adverse Effect** on the NRHP eligible House (DHR #046-5545).



Figure 27 House (DHR #046-5545), View Looking Southwest.



Figure 28 View from House (DHR #046-5545), Looking Northeast towards Solar Parcel from VP 4.

8.2.4 House (DHR #046-5546)

The house is a one-and-a-half-story, three-bay, Colonial Revival, Cape Cod-style dwelling constructed in 1950. The exterior is brick with the side gable roof clad in asphalt shingles. Two gable-roofed dormers project from the front roof slope and one-story wing has been added off the southwest gable end. An exterior brick chimney with corbeled cap and a narrow, one-story, gable-roofed porch are located off the northwest gable end. The dwelling also features a gable-roofed entry porch, Chicago-style windows, a single-leaf entry door flanked by sidelights and an elliptical transom, and six-over-six sash windows (Figure 29). Secondary resources on the property include a gazebo and two mid-twentieth century sheds. Also, part of the property is a metal vehicle shed and small utilitarian shed located at the corner of Orbit and Bowling Green roads. The resource was determined eligible for the purposes of environmental review in 2019 by DHR and is an example of mid-twentieth century rural architecture which reflects the agricultural development of this area of Isle of Wight County (DHR Site Files).

The dwelling and secondary resources near the dwelling are located back from the road within an open, relatively level landscape (Appendix A). Several large trees are located around the house. The lawn surrounding the dwelling is enclosed by a vinyl fence with agricultural fields located beyond. The two additional secondary resources are located immediate adjacent to the road within an open landscape. The dwelling is approximately 575 feet to the west of the proposed Project with the closest point of the property, based on the tax parcel is approximately 75 feet to the northwest. The property, due to its open landscape and close proximity to the proposed solar site, will have a direct view of the solar panels on the

parcel (Figures 30 and 31). Based on the fieldwork, it is anticipated that the proposed Project will have an **Adverse Effect** on the NRHP eligible House (DHR #046-5546).



Figure 29 House (DHR 046-5546), View Looking Northeast.

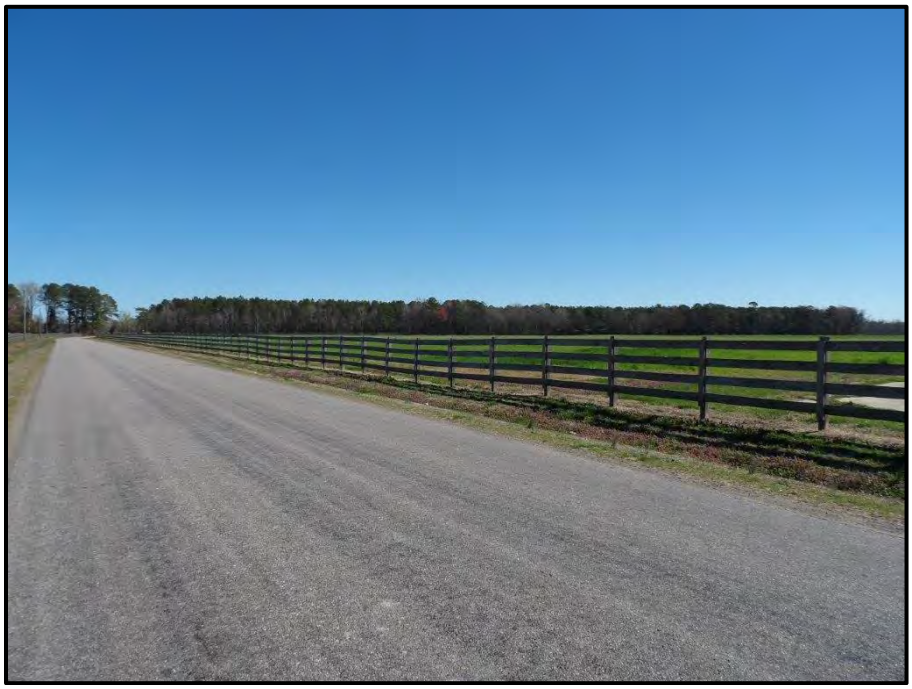


Figure 30 View from House (DHR #046-5546), Looking Northeast towards Solar Parcel from VP 1.



Figure 31 View from House (DHR #046-5546), Looking East towards Solar Parcel from VP 2.

9.0 CONCLUSIONS AND RECOMMENDATIONS

From February 20 to March 2, 2023, Stantec conducted a Phase I cultural resources survey of approximately 18 acres associated with the proposed 3 MW VAL-035 Solar Project (Project) in Isle of Wight County, Virginia. The Project is located northeast of the junction of Orbit Road (Route 637) and Bowling Green Road (Route 644). Private property borders the Project Area to the north and east. The Project Area comprises a relatively level fallow corn field.

The Phase I cultural resources survey was designed to locate and identify cultural resources within the defined Project Area, defined as the entire approximately 8-acre Project parcel, and to obtain sufficient information to make recommendations regarding their potential eligibility for listing to the NRHP.

9.1 ARCHAEOLOGICAL SURVEY RESULTS

During the archaeological survey, Stantec conducted pedestrian survey of the entire Project Area concurrently with systematic subsurface testing. A total of 320 shovel tests were excavated at 50-foot intervals along 14 transects (Transects A–N) spaced 50 feet apart throughout the Project Area. One shovel test was not excavated due to its location in standing water. No shovel tests were positive for cultural material and no new isolated archaeological finds or new archaeological sites were identified during the investigation. ***Stantec recommends that no further archaeological investigation is necessary within the Project Area.***

9.2 ARCHITECTURAL SURVEY RESULTS

A total of five individual resources were located within the architectural Study Area, defined as the Project Area and a 0.5-mile radius around the Project Area, and included five previously recorded and one newly recorded resource. Four of the five previously recorded resources have been determined potentially eligible for listing in the NRHP. Of these, two have been determined by DHR to be potentially eligible for listing (DHR #046-0004 and #046-0021) and two are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546). These four resources were surveyed in 2019 and were not resurveyed as part of the current project but were evaluated for potential visual effects of the proposed Project to each resource. One previously recorded resource was determined not eligible for listing in the NRHP (DHR #046-5646). The resource was also surveyed in 2019 and was also not resurveyed.

One newly documented resource was surveyed during the current project and is generally reflective of the mid-to late twentieth century development of Isle of Wight County and lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing in the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP (Table 9). Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.

The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resource does not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area and are commonly represented in Isle of Wight County.

The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of Isle of Wight County. Although limited information about the owners of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.

The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C and is of a common architectural style. In addition, the resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the dwelling represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

No further work is recommended for the newly recorded resource as part of the VAL035 Solar project.

Table 9 NRHP Recommendations for Architectural Resources Surveyed within the Survey Area

DHR #	Resource Name	Date	NRHP Recommendation as a Result of the Survey
045-5714	House, 18668 Orbit Road	1973	Recommended Not Eligible for Listing on the NRHP

9.3 EFFECTS EVALUATION

An effects evaluation was conducted for NRHP-listed, eligible, and potentially eligible properties which may be affected by the proposed VAL035 Solar Site Project. Four properties were assessed for effects and include the potentially eligible Cedar Acres (DHR #046-0004) and Seeds-Pierce House (DHR #046-0021) and two dwellings which are considered eligible for environmental review purposes (DHR #046-5545 and #046-5546; Table 10). Based on the current proposed Project Area and the existing landscape it is recommended that the proposed Project would have an **Adverse Effect** on all four resources. ***Based on the effects evaluation, it is likely DHR will require mitigation for Adverse Effect of the proposed project. Suggested mitigation may potentially be vegetative screening*** (Appendix A).

Table 10 Effects Evaluation of NRHP Eligible and Potentially Eligible Properties

DHR #	Resource Name	Date	NRHP Status/ DHR Recommendation Prior to Survey	Effects Assessment
046-0004	Cedar Acres, 12452 Redhouse Road	1798	Determined Potentially Eligible in 2019	Adverse Effect
046-0021	Seed-Pierce House, 18421 Orbit Road	1844	Determined Potentially Eligible in 2019	Adverse Effect
046-5545	House, 18402 Orbit Road	1906	Considered Eligible for Environmental Review Purposes in 2019	Adverse Effect
046-5546	House, 18493 Orbit Road	1950	Considered Eligible for Environmental Review Purposes in 2019	Adverse Effect

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APPENDICES

Appendix A ARCHITECTURAL RESOURCES MAPPING

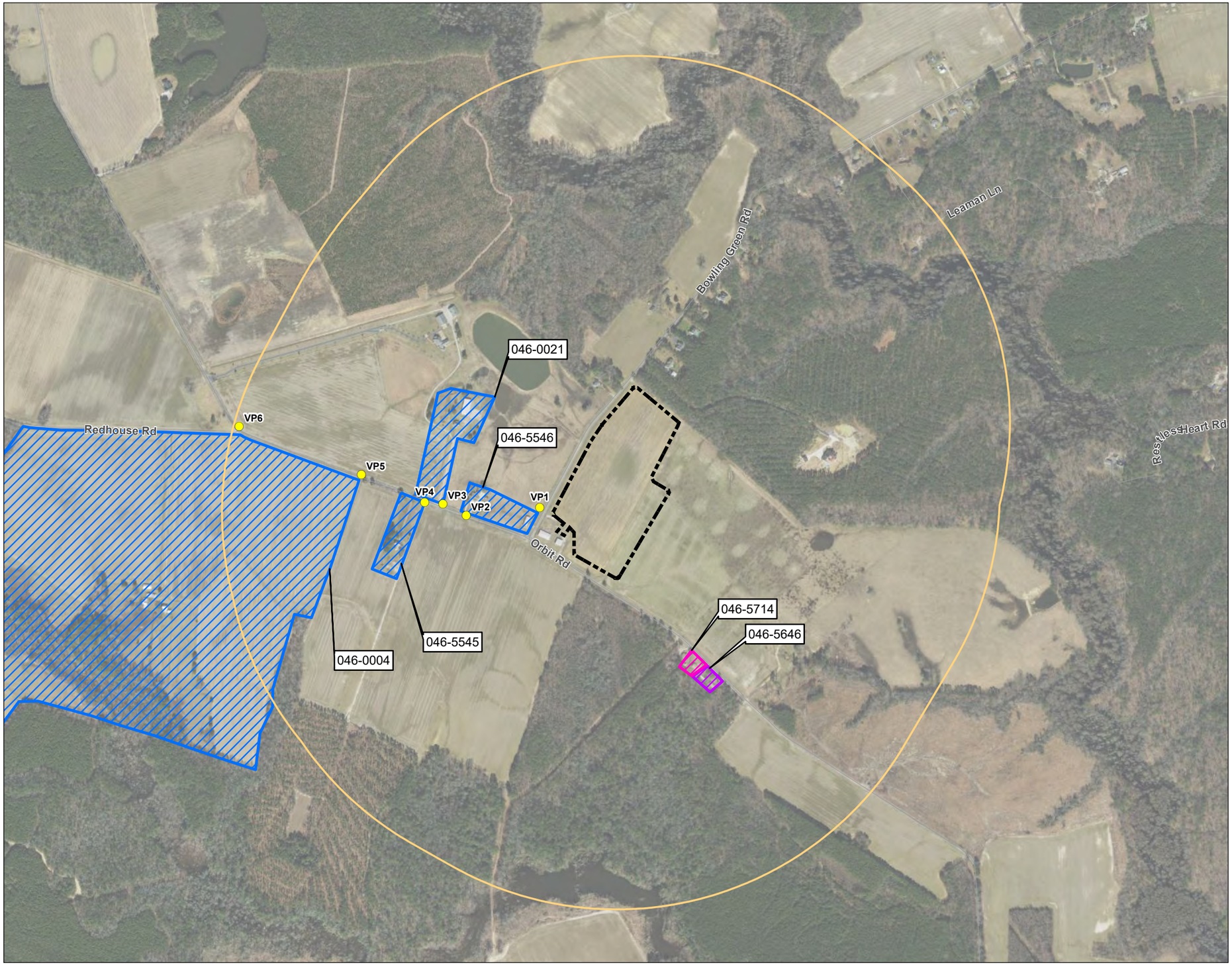


Figure No.

Appendix A

Title

Architectural Resources Map

Client/Project 195602610

Dawood Engineering, Inc.
VAL035 Solar Project

Project Location

Isle of Wight County, Virginia

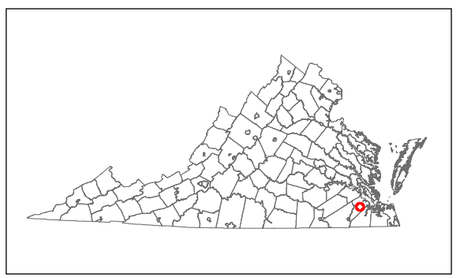
Prepared by ECL on 2023-03-29
TR by JMH on 2023-03-29
IR by BSS on 2023-03-29

N

0 800 1,600 Feet

(At original document size of 11x17)
1:9,600

- View Point
- Project Area
- 0.5- Mile Buffer
- Newly Recorded Architectural Resource
- Not Eligible - Not Resurveyed
- Architectural Resource Viewshed Only



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dawood Engineering, Inc., Stantec, U.S. Census Bureau, VDOT, Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Virginia Geographic Information Network (VGIN)

Stantec

C:\Users\ellikov\Desktop\ellens_projects\val035\195602610_e_gb1.aprx Revised: 2023-03-30 By: ellikov

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Appendix B ARCHITECTURAL V-CRIS FORMS

Property Information

Property Names

Name Explanation	Name
Function/Location	House, 18668 Orbit Road

Property Evaluation Status

Property Addresses

Current - 18668 Orbit Road

County/Independent City(s): Isle Of Wight (County)
Incorporated Town(s): *No Data*
Zip Code(s): 23487
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): SMITHFIELD

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

March 2023: The house sits back from the road within an open, level landscape and is surrounded by a lawn with woods located at the rear of the property. A gravel driveway leads from the road to the engaged carport and a well and well house are located to the north of the house.

Surveyor Assessment:

March 2023: The resource, though generally reflective of the mid-to late twentieth century development of Isle of Wight County, lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered in evaluating the architectural resources documented during the survey.
The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Isle of Wight County and does not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area.
The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of the Isle of Wight County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B.
The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. It is therefore recommended that the resource surveyed does not meet the criteria necessary for listing on the NRHP under Criterion C.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Domestic
Resource Type: Single Dwelling
NR Resource Type: Building
Date of Construction: 1973
Date Source: Local Records
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: Ranch
Form: *No Data*

Number of Stories: 1.0
Condition: Good
Threats to Resource: Public Utility Expansion
Cultural Affiliations: Indeterminate
Cultural Affiliation Details: *No Data*
Architectural Description:

March 2023: The house is a one-story, five-bay, frame dwelling with engaged carport. The exterior is brick veneer on the facade with vinyl siding on the remaining elevations. The dwelling is supported by a concrete block foundation and the cross gable roof has been clad in asphalt shingles. The dwelling also features a modern entry door and single and paired six-over-six vinyl sash windows.

Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Solid/Continuous	Concrete	Block
Roof	Cross Gable	Asphalt	*No Data*
Structural System and Exterior Treatment	Wood Frame	Brick	Veneer
Windows	Double-hung	Vinyl	*No Data*

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Well
NR Resource Type: Structure
Date of Construction: pre 1990
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: *No Data*
Condition: Good
Threats to Resource: Public Utility Expansion
Cultural Affiliations: Indeterminate
Cultural Affiliation Details: *No Data*
Architectural Description:

March 2023: The well is a low poured concrete structure with poured concrete cap.

Secondary Resource #2

Resource Category: Domestic
Resource Type: Well House
NR Resource Type: Building
Date of Construction: pre 1990
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: Public Utility Expansion
Cultural Affiliations: Indeterminate

Cultural Affiliation Details: *No Data*

Architectural Description:

March 2023: The well house is a low, concrete block structure with asphalt shingle-clad gable roof.

Exterior Components

Component	Component Type	Material	Material Treatment
Structural System and Exterior Treatment	Masonry	Concrete	Block

Historic District Information

Historic District Name: *No Data*

Local Historic District Name: *No Data*

Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*

Investigator: Sandra DeChard

Organization/Company: Stantec 2034

Photographic Media: Digital

Survey Date: 3/8/2023

Dhr Library Report Number: *No Data*

Project Staff/Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of Approximately 18 Acres Associated with the VAL-035 Solar Farm, Isle of Wight County, Virginia.

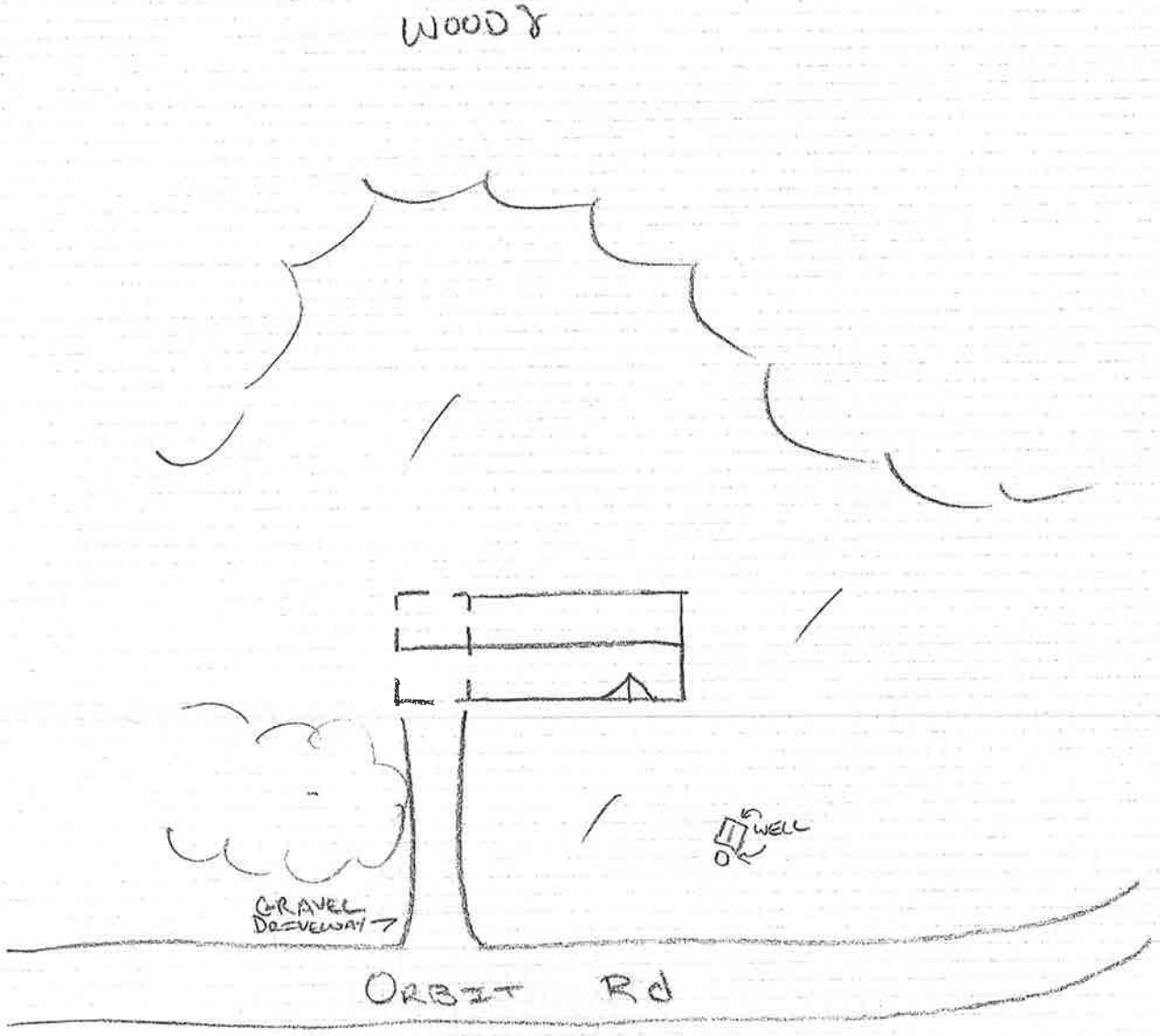
Bibliographic Information

Bibliography:

Phase I Cultural Resources Survey of Approximately 18 Acres Associated with the VAL-035 Solar Farm, Isle of Wight County, Virginia

Property Notes:

No Data



046 - 5714
18668 ORBIT Rd
ISLE OF WRIGHT
MARCH 8, 2023
O. MCCARTHY
N.T.S.

Appendix C KEY PERSONNEL RESUMES

Donald Sadler, MA

Project Archaeologist

Mr. Sadler has over 23 years of professional experience as an archaeologist. He has excavated on sites across Virginia, including Jamestown, as well as Greece, Bermuda, Georgia and Maryland, on both academic and professional projects. He has over a decade of experience as the primary field archaeologist supervising excavations at the Phase I, II and III levels involving the prehistoric and Euro-American history of the Chesapeake region. His duties at have included Phase I and II evaluations as a field technician and Field Supervisor. He has also assisted Senior Principal Investigators in report writing, management summaries, and historic research. Donnie has experience in historic ceramic analysis, 18th-century material culture analysis, managing archaeological collections, and database management.

EDUCATION

Master of Arts, Historical Archaeology, College of William and Mary, Williamsburg, Virginia, 2006

Bachelor of Arts, Anthropology with Honors, minor in History, College of William & Mary, Williamsburg, Virginia, 2001

CERTIFICATIONS & TRAINING

HAZWOPER 40 hour Certificate, Statewide, Virginia, 2018

Confined Space Awareness Training, Statewide, Virginia, 2016

RPA certified course “Metal Detecting for the Archaeologist”, Nationwide, US, 2015

PROJECT EXPERIENCE

Data Recovery of Site 44JC0664, James City County, Virginia

Donald oversaw the data recovery effort for Site 44JC0664, a Colonial era domestic site with a Civil War encampment component. Donald managed all field staff, monitored mechanical excavations, participated in feature excavation, and participated in photodocumentation of the site as well as the production of scale drawings. The site was situated within an active construction zone and Donald coordinated with on-site contractors and ensured that all staff followed safety protocol. Donald is currently synthesizing the recovered data and writing a detailed technical report describing the results of the investigation.

Documentary Research for the Sammons Cemetery, Albemarle County, Virginia

Documentary Research for the Sammons Cemetery. Report on file at the Virginia Department of Transportation (VDOT) in Richmond, Virginia.

City of Fredericksburg - Phase I Archaeological Survey, Phase II Evaluation, and Phase III Data Recovery for the Proposed Courthouse Facility at the Intersection of Princess Anne and Charlotte Streets, (Southeastern Quadrant of Block 42), City of Fredericksburg, Virginia

Three-stage archaeological investigation of a historic domestic site in the City of Fredericksburg in advance of the construction of a new Courthouse facility. The project resulted in the identification of 18th and 19th century domestic deposits including a Civil War period cellar dating to 1863. Work included archaeological fieldwork, extensive historic research, site interpretation, and final reporting. Also included was the development of an interpretive display featuring the sites to satisfy public participation requirements and highlight the significance of the lot and the site. Responsibilities included field supervision and direction for all fieldwork, field notes, and reporting.

Phase IA/Stage I Analysis for the Proposed Dominion Virginia Power Warrenton-Wheeler-Gainesville 230 kV Transmission Line Project, Fauquier and Prince William Counties, Virginia

Donald managed a cultural resources crew for the completion of a Phase IA/Stage I Cultural Resources Assessment for the proposed ~ 20 mile Warrenton-Wheeler-Gainesville 230 kV Transmission line project.

A Phase I Cultural Resources Survey of Approximately 9.4 Miles of the Proposed Dominion Virginia Power Dahlgren 230 kV Transmission Line*, King George County, Virginia

Donald and crew conducted a Phase I Cultural Resources Survey of a proposed Dominion Power 230kV utility line in King George County, Virginia. The proposed route of the Dahlgren line covers a distance of approximately 9.4 miles. Work included archaeological and architectural survey for the APE defined by the project for the entire corridor.

** denotes projects completed with other firms*

Donald Sadler, MA

Project Archaeologist

A Phase I Cultural Resources Survey of Approximately 39.0 Miles of Proposed Improvements to the Dominion Virginia Power 500 kV Transmission Line from the Lexington Substation to the Dooms Substation, Augusta and Rockbridge Counties, Virginia

Donald and crew conducted a Phase I Cultural Resources Survey of a proposed Dominion Power 230kV utility line in August and Rockbridge counties, Virginia. The proposed route of the Lexington to Doom line covers a distance of approximately 39 miles. Work included archaeological and architectural survey for the APE defined by the project for the entire corridor.

Benns Church Substation Rebuild Project, Isle of Wight County, Virginia

Donald directed the field effort for a Phase I survey of approximately 3.332 acres associated with the Dominion Virginia Power Benns Church Substation Rebuild Project and Phase II evaluation of Site 44IW0275, a Woodland period temporary camp site. Responsibilities included directing field staff in systematic shovel testing and test unit excavation, photodocumentation of the project APE and Site 44IW0275, and the production of scale drawings associated with the Phase II evaluation effort.

Dahlgren 230 kV Transmission Line Project, King George County, Virginia

Mr. Sadler led the field effort for a Phase I survey of approximately 9.4 miles associated with the Dominion Virginia Power Dahlgren 230 kV Transmission line project in King George County, Virginia. Mr. Sadler was responsible for crew management, coordination with local landowners, systematic shovel testing, and recordation.

VDOT - Archaeological Survey for Proposed Improvements to I-64, Segment 2, James City and York Counties, Virginia

Archaeological survey support for proposed improvements to Segment 2 of the I-64 improvement project in James City and York Counties Virginia. The project included archaeological survey of approximately 7 miles of proposed roadway improvements and expansion. The project included traditional archaeological survey as well as metal detecting for military related resources. Responsibilities included field supervision and direction for all fieldwork, field notes, and reporting.

US Coast Guard Training Facility, Yorktown – Archaeological Monitoring for Water Line Replacement*, Yorktown, Virginia

As subconsultant to TetraTech Tesoro, Donald provided archaeological monitoring for the replacement of a water line supporting the USCG TRACEN facility. The water line crossed the NRHP-listed Yorktown National Battlefield. Services included daily on-site monitoring, recordation of soil profiles and conditions and documentation of archaeological deposits.

Fort Monroe – On-call Archaeological Support Services, Fort Monroe, Hampton, Virginia

Donald provided on-call archaeological support services to the Fort Monroe Authority, Hampton, Virginia. Fort Monroe is a former Army Base a portion of which was transferred to the Commonwealth of Virginia in 2011. Services provided included emergency response services, Phase I level archaeological survey, archaeological monitoring, and reporting.

Cemetery Verification and Delineation Study for Site 44KG0223 along the Proposed Dominion Virginia Power Dahlgren 230 kV Transmission Line, King George County, Virginia

Donald led the field effort, monitoring mechanical excavations to identify potential grave shaft features and overseeing the metal detecting effort. The project proved that the site did not extend into the proposed transmission line right-of-way.

Cemetery Removal and Reburial at the Abberly at Stafford Development, Stafford County, Virginia

Donald assisted with a cemetery documentation and excavation of 29 burial features at Abberly in Stafford County, Virginia. The project included documentation, removal and reburial of the cemetery. Responsibilities included directing the field effort and documenting and removing burial features.

Cemetery Recovery for the Abberly at Stafford Development, Stafford County, Virginia

Donald led the field effort, monitoring mechanical excavations to identify potential grave shaft features and overseeing and participating in the archaeological recovery of human remains. Donald managed field staff during the recovery effort and assisted with the reburial effort.

** denotes projects completed with other firms*

Sandra DeChard

Senior Architectural Historian

Ms. Sandra DeChard is an Architectural Historian with over 25 years of experience in cultural resources as an architectural historian and archaeologist working in Virginia, North Carolina, Georgia, Pennsylvania, Delaware, New Jersey, Maryland, Arizona, California, Washington, Oregon, Illinois, Massachusetts, and New Hampshire. Her experience includes large- and small-scale architectural Phase I level surveys for transmission line corridors and transportation infrastructure as well as cost share projects in conjunction with local municipalities, Phase II level survey, stabilization plans, historic structures reports, and National Register of Historic Places nominations. Her range of experience also extends to detailed historical research and archival review, scaled architectural drawings and other technical drawings, signage and heritage tourism brochures, as well as museum displays. Additionally, Sandra was a founding member and Chairperson of the Martinsville, Virginia Architectural Review Board and has lectured on various Art, Art History, and Architectural topics as educator in humanities and as a guest speaker.

Sandra's current responsibilities at Stantec include architectural surveys at the Phase I and II levels, managerial tasks associated with architectural investigations, writing and editing technical reports, consultation with and representation of clients before state and national review agencies, and developing and managing project budgets and scopes of work.

EDUCATION

M.A. Preservation Studies, Architectural History, Boston University, Boston, Massachusetts, 2000

B.S. Interior Design, University of Delaware, Newark, Delaware, 1989

CERTIFICATIONS & TRAINING

Section 106 Certification, Richmond, Virginia, 2014

PROJECT EXPERIENCE

Transmission & Distribution, Transmission Lines

Dominion Energy Virginia – A Phase I Cultural Resources Survey of Approximately 7.39 Miles Associated with the Fudge Hollow to Low Moor Line #112 138 kV Transmission Line Partial Rebuild, City of Covington, Alleghany County, Virginia

Ms. DeChard served as Senior Architectural Historian for the project which included the documentation of 124 resources at a Phase I level within the defined APE of the project. The project also included the evaluation of the resources for NRHP eligibility.

Dominion Energy Virginia – A Phase I Cultural Resources Survey of Approximately 14.5 Miles Associated with the Proposed Valley to Dooms 500 kV Rebuild Project in Augusta County, Virginia

Ms. DeChard served as Senior Architectural Historian for the project which included the documentation of 306 resources at a Phase I level within the defined APE of the project. The project also included the evaluation of the resources for NRHP eligibility.

Roadways

NCDOT – Historic Structures Survey Report T.I.P. No. U-6077, Widening of SR 4315/Kernersville Road from SR 2632/Sedge Garden Road to Harmon Creek Road, Forsyth County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of two resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.

** denotes projects completed with other firms*

Sandra DeChard

Senior Architectural Historian

NCDOT – Historic Structures Survey Report for T.I.P. No. U-3609B, Widening US 13 (Berkeley Boulevard) from SR 1003 (New Hope Road) to SR 1572 (Saulston Road) in the City of Goldsboro, Wayne County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of two resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.

NCDOT – Building Inventory for TIP# U-5863, Widen NC 133 (Castle Hayne Road) from I-140/US17 (Wilmington Bypass) to SR 1310 (Division Drive, New Hanover County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included building inventory of 136 resources within the area of potential effect for the proposed road improvements.

NCDOT – Historic Structure Survey for TIP# R-5743B, Widen US 23/US441 from US 64 to SR 1652 (Wide Horizon Drive)/SR1152 (Belden Circle) to South of SR1649 (Prentiss Bridge Road), Franklin, Macon County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of five resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.

VDOT – A Phase I Architectural Survey for the Proposed Cochran Mill Road Bridge Replacement, Loudoun County, Virginia

Sandra served as architectural historian for the survey. The survey included the documentation of three resources at a Phase I level including the bridge as well as two resources immediately adjacent to and in view of the Cochran Mill Road Bridge.

VDOT – An Architectural Survey for the Route 15/29 Bridge Replacement*, Culpeper County, Virginia

Ms. DeChard served as Architectural Historian for the survey. The survey entailed the recordation of three resources, including the bridge, within the study area. Evaluations of NRHP eligibility for each resource were also conducted.

Bridges

City of Atlanta- Architectural Survey of the Powers Ferry Road Bridge over Nancy Creek, Powers Ferry Road, Atlanta, Georgia

Ms. DeChard served as Senior Architectural Historian, Principal Investigator for the survey. The survey documented the bridge at a Phase I level and utilized historic background research as well as an architectural evaluation of the resource's integrity in order to make a recommendation of the bridge's NRHP eligibility.

VDOT – Page County Bridge National Register of Historic Places Nomination Form*, Page County, Virginia

Ms. DeChard conducted detailed research and authored the National Register of Historic Places (NRHP) nomination form for the Page County Bridge, Page County, Virginia.

** denotes projects completed with other firms*

Brynn Stewart, MA

Program Manager/Senior Principal Investigator

Brynn is the Program Manager/Senior Principal Investigator for Cultural Resources in Stantec's Williamsburg, Virginia, office. She has over 18 years of experience in cultural resources management. Brynn meets the Secretary of the Interior's standards and guidelines for a professional archaeologist. She has served as a Principal Investigator and Project Archaeologist on numerous transportation and energy-related projects as well as private development projects.

Brynn manages in-house technical staff, supervises technical document preparation, and provides quality control and peer review for cultural resources studies. Her expertise includes all phases of cultural resource management (archaeological assessments and Phase I, II, and III excavations) in compliance with local, state, and federal laws and regulations. Brynn's experience includes managerial tasks associated with all aspects of cultural resource management projects such as consultation with and representation of clients before state and national review agencies, writing and editing technical reports, preparing and managing project budgets, and developing and implementing archaeological research designs.

Brynn also has experience in the processing and analysis of artifact collections with special interest in Colonial-era ceramics and lithic analysis and the development and production of interpretive materials including pamphlets and exhibits.

EDUCATION

Master of Arts, Anthropology, University of Nevada, Las Vegas, Nevada, 2009

Bachelor of Arts, Anthropology, Washington College, Chestertown, Maryland, 2004

CERTIFICATIONS & TRAINING

OSHA Excavation Safety: Satisfies 29 CFR 1926.650

OSHA Confined Space Safety: Satisfies 29 CFR 1910.246, 29 CFR 1926.1001, 29 CFR 1915.1001

PROJECT EXPERIENCE

Ore Bank Undergrounding Project, Rockingham County, Virginia

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with the Civil War Trust and will author the technical report upon completion of on-going investigations.

Abberly at South Campus Development, Stafford County, Virginia (Principal Investigator)

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. She directed pre-fieldwork planning, managed field personnel, and participated in Phase II evaluation of Site 44ST1141. Brynn synthesized data collected during evaluation and served as the lead author of the resulting technical report.

Data Recovery of Sites 44PW1305 and 44PW1306 for the Eagles Pointe Landbay A Section 2 Development Project, Prince William County, Virginia

Brynn is serving as Principal Investigator for this on-going project. She developed the scope of work and budget prior to the awarding of the project. Brynn coordinated with the client and the County Archaeologist on the Data Recovery Plan she developed. She has managed field personnel and coordinated with the VDHR to procure both an Anticipatory Permit and a Burial Permit for the excavation of a single burial identified within Site 44PW1306. Brynn coordinated the placement of public notice as part of the Burial Permit and gave a presentation concerning the burial feature to the Prince William County Historical Commission, which served as a public meeting as a result of responses received for the said public notice. Brynn is currently coordinating the reburial of the recovered remains with a local cemetery and will author the resulting technical report.

** denotes projects completed with other firms*

Brynn Stewart, MA

Program Manager/Senior Principal Investigator

Data Recovery of Site 44JC0662, James City County, Virginia

Brynn served as Principal Investigator, directing pre-fieldwork planning and overseeing the field effort. Brynn participated in feature excavation. She coordinated the field effort with the client as well as site inspectors and was responsible for coordinating with local Native American tribal representatives with an interest in the project. Brynn participated in shovel testing and monitoring activities, synthesized the data collected during the project, and served as lead author on the resulting technical report.

Poplar Grove National Cemetery Archaeological Investigations and Monitoring, Dinwiddie County, Virginia

Brynn served as Principal Investigator, coordinating with the NPS and field staff. The NPS conducted rehabilitation at the cemetery, including the replacement of 5,700 headstones, rehabilitation of the Superintendent's lodge, restoration of site furniture and signs, replacement of the flagpole and site utilities, preservation of the cemetery wall, and rehabilitation of the landscape. Brynn participated in shovel testing and monitoring activities, synthesized the data collected during the project, and served as lead author on the resulting technical report.

Berkmar Data Recovery, Charlottesville, Virginia

Brynn served as Principal Investigator, assisting in the development of a scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with client representatives, conducting excavations, compiling and interpreting fieldwork results, on-going lithic analysis, and is in the process of co-authoring the resulting technical report.

Trowbridge-Pantego Transmission Line Project, Washington and Beaufort Counties, North Carolina

Brynn served as Principal Investigator, coordinating with Project Managers and field personnel. Brynn directed pre-fieldwork planning and was responsible for compiling and interpreting fieldwork results. She is currently in the process of co-authored the resulting technical report.

Fredericksburg Courthouse Project, City of Fredericksburg, Virginia

Brynn served as Principal Investigator, directing pre-fieldwork planning and managing field personnel during Phase I, Phase II, and Phase III investigations of eighteenth-century through nineteenth-century deposits. She also participated in fieldwork, synthesized data collected during all three phases of work, and served as the lead author of the resulting technical report. She helped develop and produce a public exhibit of artifacts on display in the new Courthouse.

Dominion Virginia Power Splice Pit within the Colonial National Historic Park, James City County, Virginia

Brynn served as Principal Investigator, leading the field effort and interpreting data post-field effort. She also authored the resulting technical report.

Mosby Substation (Laydown Yard and Storm Water Management Basin Area) Project, Loudoun County, Virginia

Brynn served as Principal Investigator, managing the field effort and interpreting data post-field effort. She also authored the resulting technical report.

Goose Creek to Loudoun 500kV Transmission Line Improvement Project, Loudoun County, Virginia

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with client representatives, compiling fieldwork results, interpreting sites, entering site data into V-CRIS, and co-authoring the resulting technical report.

Warren County Power Station Proposed Auxiliary Parking Lot, Warren County, Virginia

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for compiling fieldwork results and authoring the resulting technical report.

** denotes projects completed with other firms*

ISLE of WIGHT COUNTY MUSEUM

March 11, 2024

Virginia Department of Historic Resources
Adrienne Birge-Wilson, Architectural Historian, Review & Compliance Division
2801 Kensington Avenue
Richmond, Virginia 23321

Dear Ms. Birge-Wilson,

This letter acknowledges that Dawood, on behalf of solar projects Pivot Solar Sites VAL025 and VAL035, intends to contribute $15,000 towards the restoration of Isle of Wight County's 1950s Nike-Ajax missile. This is the largest artifact in the collection of the Isle of Wight County Museum. It was accessioned in 2019 after it was donated to us by the City of Hampton, Virginia. Once restored, it will contribute to the historic interpretation of Carrollton-Nike Park, the former site of the U.S. Army's Nike-Ajax Missile Launch Site N-75L and an historic district listed on the National Register of Historic Places.

The Carrollton-Nike Missile Battery was operational by 1954 and was one of eight batteries that made up the Norfolk Defense Area. Each battery consisted of two areas: a launch area and a control area. These two sites were connected by an underground cable system that enabled communication.

In the event of an impending attack on Hampton Roads, all area batteries prepared to fire under the direction of the central command at Fort Monroe. At Carrollton, troops manned their stations ready to deploy their 27 missiles. Once fired, a missile was guided to the target by its radar system.

When the U.S. Army developed nuclear-tipped Nike-Hercules missiles, Carrollton-Nike and four other batteries in the Norfolk Defense Area became obsolete. The U.S. Army operated this location as a radio relay site from 1961 to 1971. In 1972, Isle of Wight County obtained it – and the former control site located at Jones Creek - to develop the facilities in place today.

103 Main Street
Smithfield, VA 23430
(757) 356-1014
(757) 357-0114 FAX

ISLE of WIGHT COUNTY MUSEUM

We are very pleased to receive this generous grant for our restoration project from Dawood/Pivot at the approval and encouragement of the Virginia Department of Historic Resources. With mitigation not feasible as per your requirements, this substitution will positively impact the preservation of Isle of Wight County history.

Our acceptance of this grant does not represent approval or recommended approval of the project, but know that this rare opportunity is greatly valued.

As Dawood moves forward with Pivot Solar Sites VAL025 and VAL035, please do let me know if you visit the area. I would be pleased to offer you a tour of Carrollton-Nike Park and share our progress with the restoration of the Nike-Ajax missile.

Kind regards,

J.L. England
Isle of Wight County Museum Director
Isle of Wight County Historic Resources Manager

103 Main Street
Smithfield, VA 23430
(757) 356-1014
(757) 357-0114 FAX

ISLE of WIGHT COUNTY MUSEUM

MEMORANDUM

TO: Trenton S. Blowe
Planner 1, Planning & Zoning, Isle of Wight County

FROM: Jennifer England
Director, Isle of Wight County Museum
Historic Resources Manager, Isle of Wight County

RE: Pivot Solar Facility – 18213 Orbit Road
Conditional Use Permit Application (CUP-07-23), 2nd Submittal
Tax Map No. 39-01-026

DATE: November 22, 2023

After reviewing the Cultural Resource Assessment prepared by Dawood for Elkwood Development LLC for the proposed Pivot Solar Facility on 18213 Orbit Road, the Isle of Wight County Museum/Isle of Wight County Department of Historic Resources is comfortable with the findings of the report.

No further archaeological work is necessary.

With the analysis of the architectural resources within the viewshed of the proposed project – specifically the four eligible/potentially eligible for the National Register of Historic Places structures (046-004, 046-0021, 046-555 and 046-5546) - vegetative screening is strongly encouraged as it will mitigate the solar facility's visual impact to the area.

While the area has been farmed for decades, the potential on the project site for archaeological artifacts is a possibility. If the landowner is willing, the Isle of Wight County Museum should be considered a repository for discovered artifacts and future finds on this site as they could further the interpretation or discovery of Isle of Wight County history.

103 Main Street
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COMMONWEALTH of VIRGINIA

Department of Historic Resources

Travis A. Voyles
Secretary of Natural and Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

M E M O R A N D U M

To: Robert B. Hickox, III M.S.
Pivot Energy

From: Adrienne Birge-Wilson, Architectural Historian (804) 482-6092
Review and Compliance Division

Subject: VAL-025 Solar Project, Isle of Wight (DHR File No. 2023-3719) and VAL-035 Solar Project, Isle of Wight (DHR File No. 2023-3718)

Comments:
We received communication from the Isle of Wight County Museum that your company intends to contribute $15,000 towards the restoration of Isle of Wight County's 1950s Nike-Ajax missile. DHR approves of the mitigation for the above referenced projects. Please provide a receipt or confirmation of payment after the transaction, to close out the mitigation item.

4/30/2024

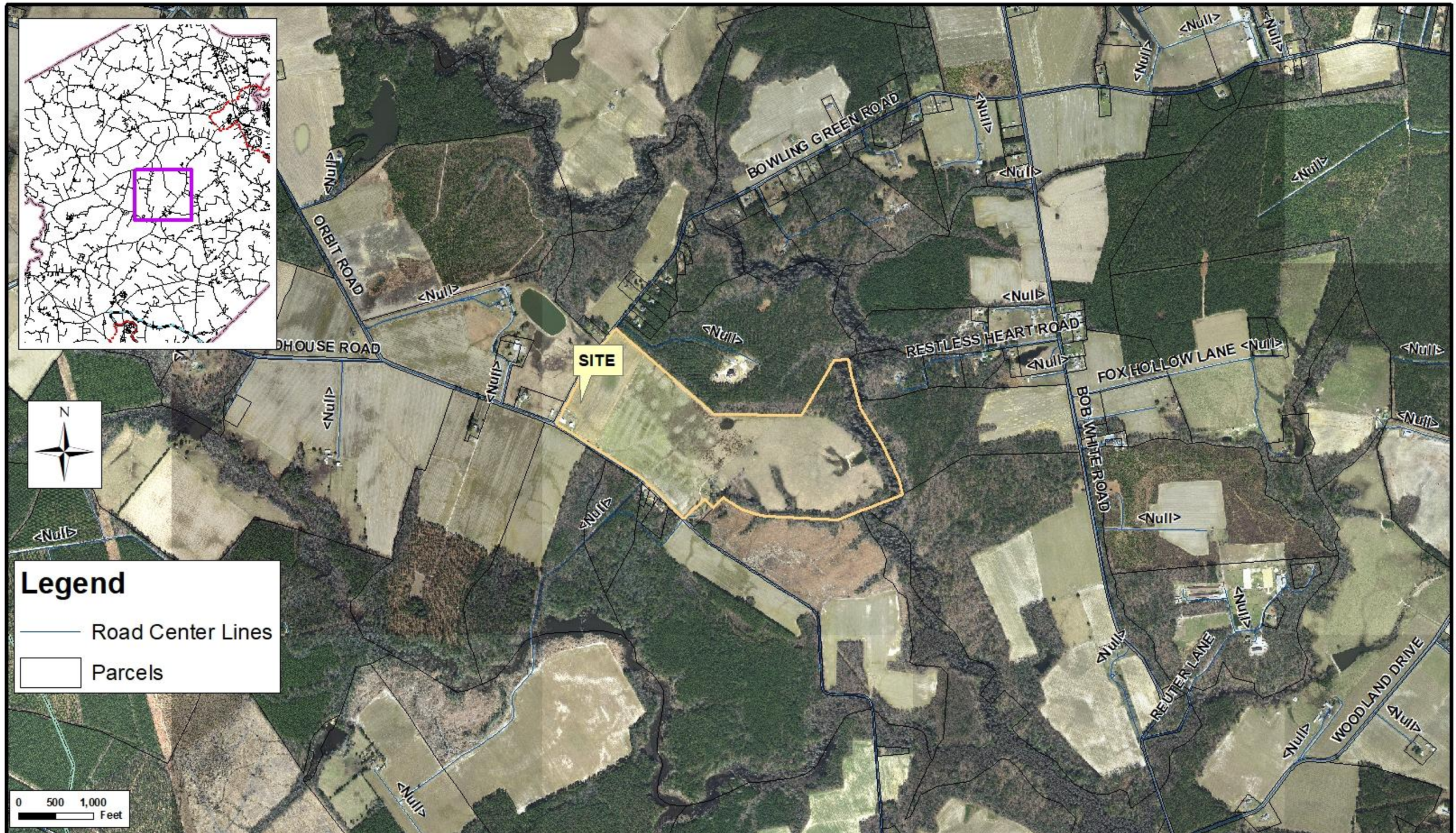
Sycamore Cross A and B Solar Projects with Approved Solar Energy Generation Facilities as of 6/13/24

PROJECT	DEVELOPED AREA (PER CUP)	PRIME FARMLAND /SOILS OF STATEWIDE IMPORTANCE*	% OF TOTAL PRIME SOILS (rounded)	LOCATION	% OF TOTAL FARMLAND**	TOTAL MW	APPROVAL DATE
Woodland	180	124	0.10%	Longview	0.22%	20	2015
Solidago	170	170	0.14%	Redhouse	0.21%	20	2018
Ho-Fel	330	315	0.26%	Lees Mill	0.41%	55	2019; Amended 2023
Windsor PV1	630	630	0.52%	Windsor	0.78%	85	2019; Amended in 2021
Cavalier	500	500	0.41%	Hardy	0.62%	240	2021
Nuby Run	20	20	0.02%	Orbit	0.02%	2	2022
Carver	637	297	0.24%	Windsor	0.79%	71	Approved 7/23/2023
Prairie Solar	152	152	0.12%	Longview	0.19%	20	Approved 8/17/23
Courthouse Solar	18	18	0.01%	Route 258	0.02%	3	Approved February 2024
Old Stage (Proposed)	27.32	27.32	0.02%	Burwells Bay/Moonlight	0.03%	3	Under Review
TOTAL	**2,664**	**2,253**	**1.84%**		**3.30%**	**519**	

Prime soils include Prime Farmland, Prime, If Drained, and Soils of Statewide Importance – 122,296 total acres in County

****Total active agricultural lands as of 2017 Census of Agriculture – 80,672 acres***

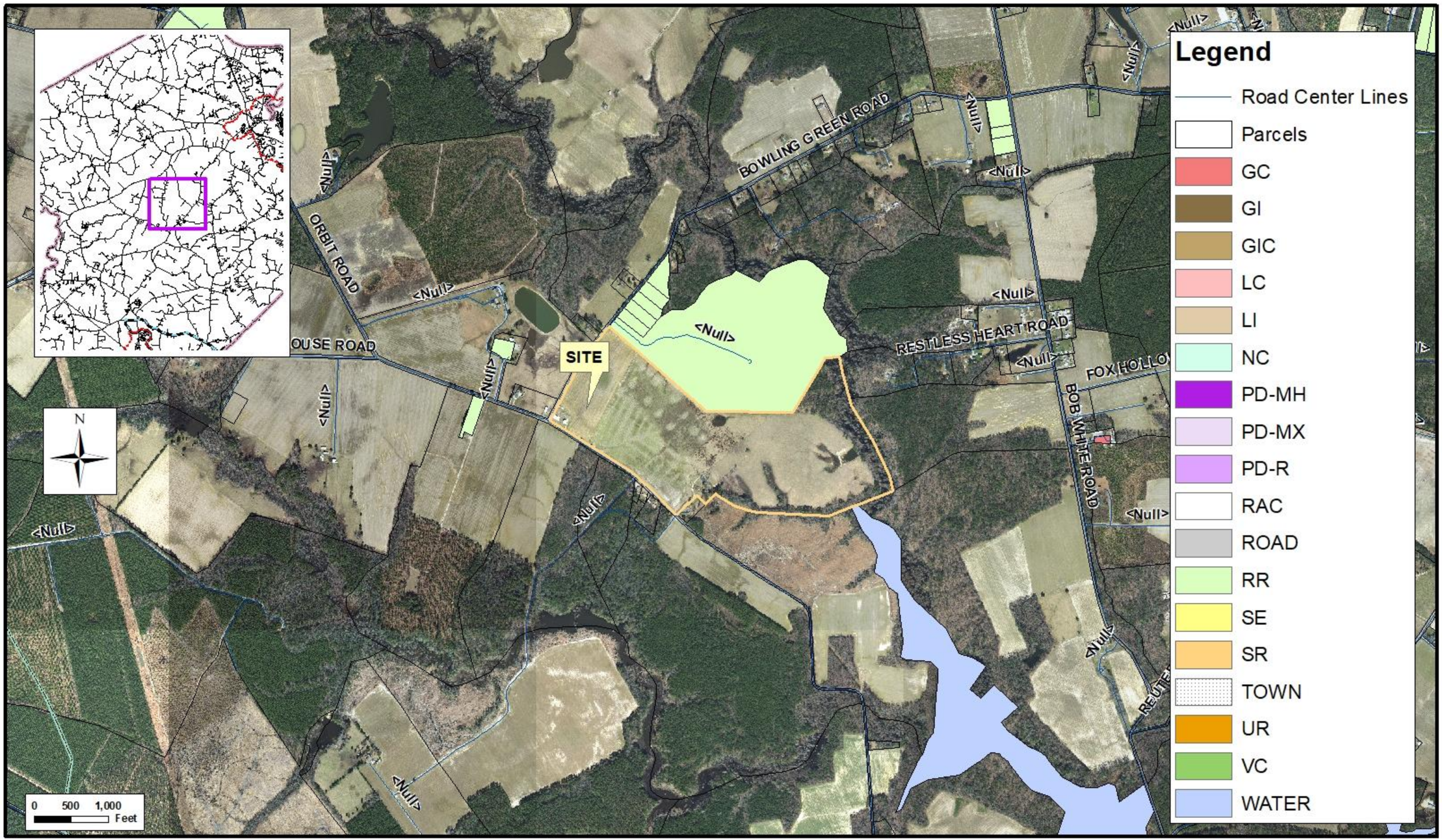
CUP-7-23 - Conditional Use Permit- Location Map



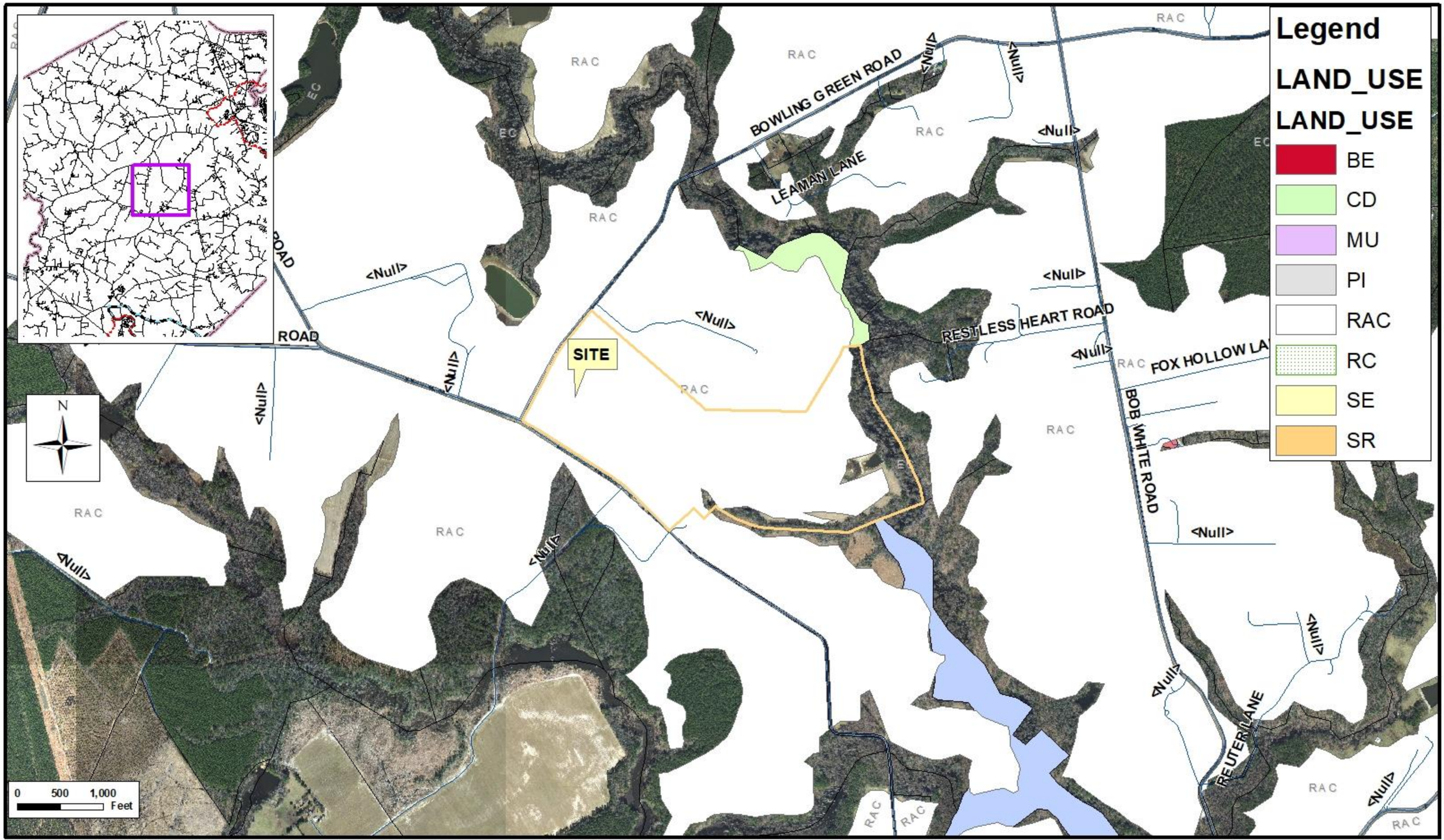
CUP-7-23 - Conditional Use Permit- Closeup Map



CUP-7-23 - Conditional Use Permit- Zoning Map



CUP-7-23 - Conditional Use Permit- Land Use Map



PLANNING REPORT

APPLICATION:

Application (CUP-3-24) of Todd Christiansen, applicant, and Isle of Wight County School Board, property owner, for a conditional use permit for a modular classroom on approximately 0.5 acres on tax parcels 66-01-010 and 66-01-010A located at 5355 Carrsville Highway (Rte. 58) in the Village Center zoning district. The current use of the property is as a primary educational facility and is the site of Carrsville Elementary School.

ELECTION DISTRICT:

District 5

LOCATION:

The proposed project is located at 5355 Carrsville Highway (Rte.58). To the south across Rte. 58 is the Carrsville post office. To the west, there is some residential development along Colosse Road. To the north, there is additional property owned by the Isle of Wight County School Board. To the east are agricultural fields. A property location map is attached to this staff report.

BACKGROUND:

The project site is the location of Carrsville Elementary School. The school in its current form was approved for renovation in 1996. Before the construction of the modular classroom, the property had the existing school building and two previously approved modular classrooms.

In 2022, the school approached the County to place a modular classroom to the rear of the existing school on an existing concrete pad. While a modular classroom is a permitted use in the Village Center (VC) zoning district, supplementary use regulations state that modular classrooms requiring placement longer than twelve months or include construction of additional parking shall require a conditional use permit. The modular classroom was permitted to be installed with the condition that if it were on the property longer than a year, a conditional use permit would be required. The modular classroom received a certificate of occupancy in May of 2023.

DESCRIPTION:

The proposal is for a 1700-square-foot modular classroom at the existing school site on an existing concrete pad. The modular classroom is one building that has two separate classrooms. Each classroom can hold 20 students. Per the applicant's description, one classroom is the current location for the Pre-K program and the other classroom is being used for individual learning. The classroom is served by public water and sewer. No additional parking or structures were proposed.

COMPREHENSIVE LAND USE PLAN:

The comprehensive plan future recommended land use designation for the property is Village Center (VC). The VC land use consists of a cluster of residential development with a variety of uses supporting the local rural community such as a church, post office, and convenience store. Because the VC is meant to preserve and enhance historic rural villages, it is located outside of the Development Service Districts (DSDs).

Appropriate uses found in VC includes single-family residences and social, religious, and institutional uses such as churches or a post office. Commercial uses that support the VC land use, such as a convenience store or bed and breakfast could also be appropriate. A modular classroom is generally consistent, as it is a civic use that provides support to the educational facility for the population in the village center.

ORDINANCE REVIEW:

The zoning district classification for this property is Village Center (VC). The VC zoning district is intended to provide low to medium-density residential development in those areas of the County that are identified as "village centers" in the comprehensive plan. This district shall be used to preserve the character of these existing unincorporated rural population centers which have a single-family residential character, but which also contain certain types of community, commercial, or light industrial activities to serve primarily a local rural population. Some permitted uses in this district include single-family dwellings, bed and breakfast, post office, and general store. The property lies within the Highway

Corridor Overlay.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and,
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact on the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon

the use of surrounding properties;

5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and,
10. The preservation of cultural and historic resources of landmarks.

AGENCY REVIEW:

The location and installation were approved by the General Services, Inspections, and Planning and Zoning during the initial submittal.

STAFF CONCLUSIONS:

Strengths:

1. The approval of the CUP would allow the applicant to come into compliance with the zoning ordinance.
2. The use is a permitted use in the VC zoning district.

Weaknesses:

1. None identified.

STAFF RECOMMENDATION:

Staff recommends approval of the application as submitted

ATTACHMENTS:

Description	Type	Upload Date
Application	Backup Material	7/11/2024
Concept Plan	Backup Material	7/11/2024
Location Map	Backup Material	7/11/2024
Location Closeup Map	Backup Material	7/11/2024
Land Use Map	Backup Material	7/11/2024
Zoning Map	Backup Material	7/11/2024

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Use Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[✓] Conditional Use Permit (Are applicant proposed conditions attached?): ✓ Yes ____ No

The proposed use or activity is listed as a conditional use in the VC zoning district as per Section ____ in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): ____ Yes ____ No

Proposed Use or Activity: ____

B. PROJECT DESCRIPTION:

Project Name: Carrsville Modular Classroom

Property Address (if any): 5355 Carrsville Hwy Carrsville, VA 23315

Election District: DS

Comprehensive Plan Designation: ____

The use permit will apply to 0.1 acres out of 6.97 total acres

Tax Parcel Identification # 66-01-010-5355 Number of acres to be effected: ~~0.000~~ 0.05

Tax Parcel Identification # 66-01-010A Number of acres to be effected: 0.05

Tax Parcel Identification # ____ Number of acres to be effected: ____

Proposed Utilities (check all that apply): Public Water ✓ Private Well ____

Public Sewer ✓ Private Septic ____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Todd Christiansen

Address: 820 W Main St

City, State, Zip Code: Smithfield, VA 23430

Phone No.: 365-1625 Email: tchristiansen@iwcs.k12.va.us Fax No.:

Property Owner(s) Name(s): IWCS School Board

Address: 820 W. Main St

City, State, Zip Code: Smithfield, VA 23430

Phone No.: 357-4397 Email: Fax No.:

Applicant Signature — Date: 08/02/22

Owner Signature *if different* — Date

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____

Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Todd Christensen

Address 820 W Main St
Street

Smithfield VA 23430
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
None	

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
None	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[Y]
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Todd Christensen (Printed or Typed Name) Applicant: _____ (Signature) Date: 08/02/23

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me 8/2/2023 Todd Christensen
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia this 2 day of August, 2023.

Tracey Reutt
Notary Public

My Commission Expires 3/31/2025

TRACEY LEE REUTT NOTARY PUBLIC MY COMMISSION NUMBER 7260368 COMMONWEALTH OF VIRGINIA

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

****Both checklist and application required upon submission to central permitting or application will notbe accepted****

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for an exception shall be certified as complete unless the following information is provided. ***The required number of copies may be increased or reduced with permission of the Zoning Administrator, depending on the review needs.*** Applicant(s) must have their signature(s) notarized on the disclosure of real estate holdings.

- ☐ **Ten (10) copies of the following**
  - ☐ original, executed application
  - ☐ a statement of the reasons for seeking conditional or special use permit
  - ☐ narrative description of the property which shall include the tax parcel identification number
  - ☐ full size concept plan of the site to show all existing and proposed physical improvements and such otherinformation as is necessary to clearly indicate to the reviewing body that adequate provisions have been made for compliance with all standards for that particular use, the extent of the property to beso used on a given parcel or parcels, and information defining the requested exceptions. The plan shall be prepared by the appropriate authorized design professional licensed to practice in Virginia. No person shall prepare or certify design elements of site plans which are outside the limits of their professional expertise and license. Such document shall be drawn to scale and shall include the following information:
    - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
    - Title of drawing
    - Date of drawing
    - Existing wood line
    - North arrow

- Scale bar
- Current zoning of parcel(s), including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)

☑ **One (1) original executed application**

☑ **One (1) digital copy of ALL application documents**

☑ **One (1) reduced 11"x17" copy of concept plan**

☐ **Application fee submitted with the application. Checks should be made payable to treasurer, Isle of Wight, County**

☐ **A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.**

☑ Other information may be necessary to demonstrate compliance with all other applicable federal, state and County standards and regulations.

☐ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal willbe refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the appropriate reviewing body.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents, and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete, and correct information available. I understand that any section not completed in its entirety may delay the processing of this application.

Todd Christiansen

Printed or Typed Name

Signature

09/05/2023

Date

Owner: Isle of Wight County
Address: 5355 Carrsville Hwy.
Carrsville, VA 23315

Zoning: VC
TPIN: 66-01-010 5355, 66-01-010A
Adjacent parcels: VC

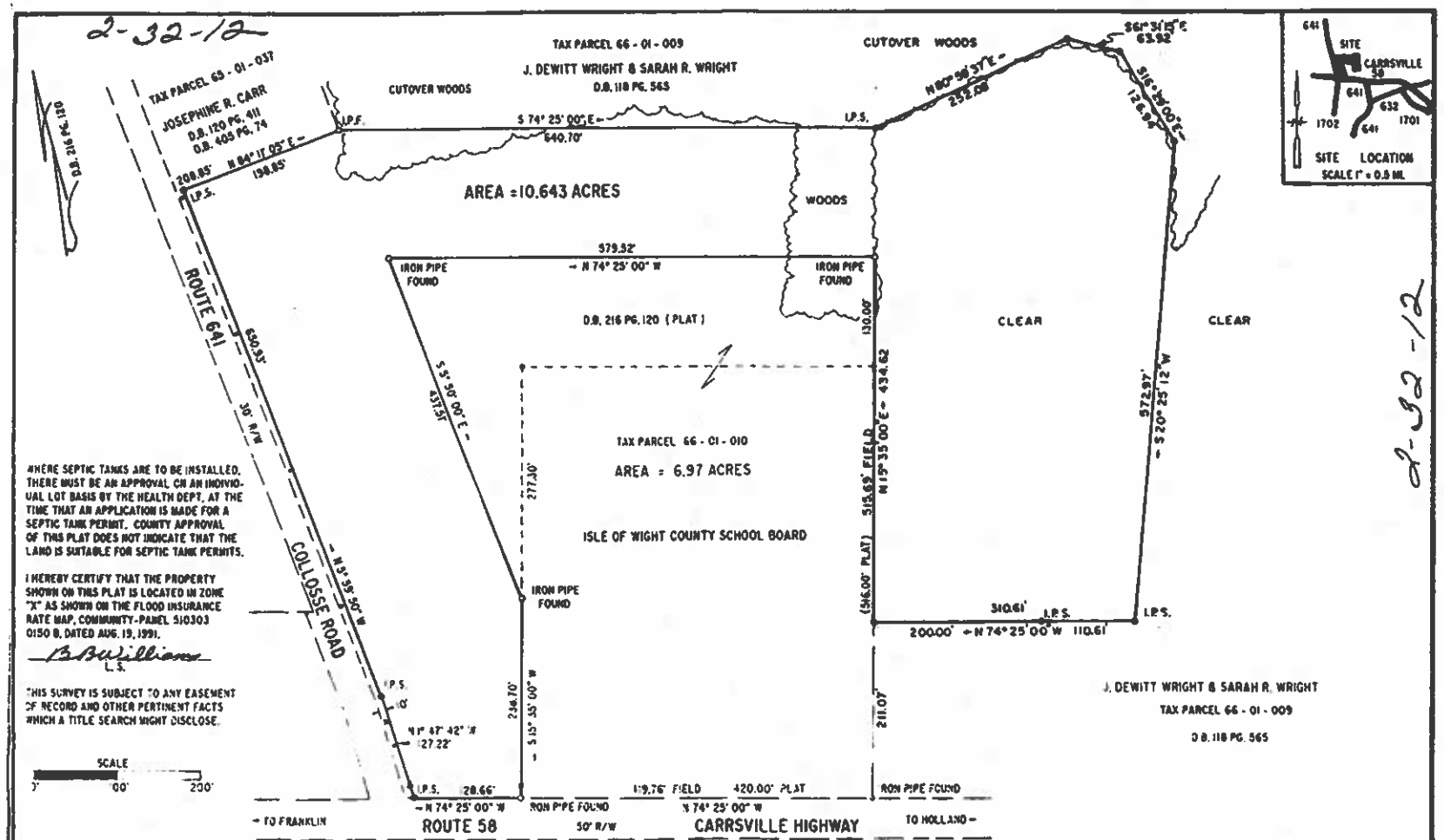
Proposed use: Modular classroom

APPROVED


3185
3355
3311
3315
3332
213 ft


CLASSROOM
CLASSROOM

2-32-12



WHERE SEPTIC TANKS ARE TO BE INSTALLED, THERE MUST BE AN APPROVAL ON AN INDIVIDUAL LOT BASIS BY THE HEALTH DEPT. AT THE TIME THAT AN APPLICATION IS MADE FOR A SEPTIC TANK PERMIT. COUNTY APPROVAL OF THIS PLAT DOES NOT INDICATE THAT THE LAND IS SUITABLE FOR SEPTIC TANK PERMITS.

I HEREBY CERTIFY THAT THE PROPERTY SHOWN ON THIS PLAT IS LOCATED IN ZONE "X" AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL 510303 0150 B, DATED AUG. 19, 1991.

B.B. Williams
L.S.

THIS SURVEY IS SUBJECT TO ANY EASEMENT OF RECORD AND OTHER PERTINENT FACTS WHICH A TITLE SEARCH MIGHT DISCLOSE.

SCALE
0' 100' 200'

I, B. B. WILLIAMS, A DULY LICENSED SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND PROCEDURES FOR LAND BOUNDARY SURVEYING PRACTICE AS ESTABLISHED BY THE COMMONWEALTH OF VIRGINIA BOARD OF ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

B.B. Williams
B. B. WILLIAMS, L.S. #1267

2-32-12

COMMONWEALTH OF VIRGINIA
B.B. Williams
S. B. WILLIAMS
NO. 1287
3-29-96
LAND SURVEYOR

WILLIAMS & VANN - LAND SURVEYOR
1104 NORTH HIGH STREET
FRANKLIN, VIRGINIA 23851

PLAT SHOWING PROPERTY OF
J. DEWITT WRIGHT & SARAH R. WRIGHT, BEING CONVEYED TO
THE ISLE OF WIGHT COUNTY SCHOOL BOARD
AS AN ADDITION TO THE SCHOOL BOARD PROPERTY
LOCATED AT 5355 CARRSVILLE HIGHWAY
WINDSOR MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA
SCALE 1" = 100' AUG. 29, 1994 **

REFERENCE - W.B. 37 PG. 415 & D.B. 118 PG. 565
○ - DENOTES IRON PIN FOUND I.P.S
● - DENOTES IRON PIN SET I.P.S.
▲ - DENOTES POWER POLE
⊕ - DENOTES 50' DEDICATED RIGHT OF WAY

See Ded Bk DB474-477

VIRGINIA: Clerk's Office of the Circuit Court of the County of Isle of Wight,
May 10 19 96, at 12:42 o'clock P.M., this Plat
was received and with the certificate annexed, admitted to record.
Teste: W. B. Lohr, Jr., CLERK, By: Catherine H. Chatfield

2-32-12

** REVISED MARCH 21, 1996

2-32-12

I HEREBY CERTIFY THAT THIS PLAT AND SUBDIVISION WAS MADE BY ME AT THE DIRECTION OF THE OWNER AND IS ENTIRELY WITHIN THE BOUNDARIES OF LAND OWNED BY J. DEWITT WRIGHT & SARAH R. WRIGHT, THE LAST INSTRUMENT OF TITLE BEING IN DEED BOOK 118, PAGE 565.

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL OF THE REQUIREMENTS OF THE BOARD OF SUPERVISORS AND ORDINANCES OF THE COUNTY OF ISLE OF WIGHT, VIRGINIA, REGARDING THE PLATTING OF SUBDIVISIONS WITHIN THE COUNTY HAVE BEEN COMPLIED WITH.

GIVEN UNDER MY HAND THIS 29th DAY OF March, 19 96

B.B. Williams
STATE REGISTERED LAND SURVEYOR

_____ HEREBY CERTIFIED THAT HE IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAT AND THAT THIS SUBDIVISION IS WITH HIS FREE CONSENT AND IN ACCORDANCE WITH HIS DESIRES.

WITNESS MY HAND AND SEAL THIS 4th DAY OF April, 19 96.

J. Dewitt Wright Jr. OWNER _____ OWNER
Sarah R. Wright OWNER _____ OWNER
_____ OWNER _____ OWNER
_____ OWNER _____ OWNER

STATE OF VIRGINIA AT LARGE
COUNTY OF SOUTHAMPTON, TO-WIT:

SUBSCRIBED AND SWORN TO BEFORE ME Linda F. Jenkins, A NOTARY PUBLIC IN AND FOR THE COUNTY OF Southampton, STATE OF VIRGINIA THIS 4th DAY OF April, 19 96.

MY COMMISSION EXPIRES December 31, 1998.

GIVEN UNDER MY HAND THIS 4th DAY OF April, 19 96.

Linda F. Jenkins
NOTARY PUBLIC

THIS PLAT IS APPROVED BY THE UNDERSIGNED IN ACCORDANCE WITH EXISTING SUBDIVISION REGULATIONS AND MAY BE COMMITTED TO RECORD.

4-25-96
DATE
HIGHWAY ENGINEER

5/7/96
DATE
AGENT OR REPRESENTATIVE OF GOVERNING BODY

2-32-12

GENERAL NOTES:

1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
3. ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
4. ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 26 GA. WITH 7 - 1.5 GA x 7/16 INCH CROWN x 1 INCH STAPLES EACH END OF STRAP OR EQUIVALENT FROM RIDGE BEAM TO COLUMN, AND COLUMN TO FLOOR.
5. PORTABLE FIRE EXTINGUISHER PER N.F.P.A. - 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
6. PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE BUILDING OWNER AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
7. WHEN LOW SIDES OF ROOF PROVIDE LESS THAN 6" OF OVERHANG, GUTTERS AND DOWN SPOUTS SHALL BE SITE INSTALLED, DESIGNED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
8. IN WIND-BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIREMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM 1996. WIND-BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE IBC.

! ATTENTION LOCAL INSPECTIONS DEPARTMENT ! SITE INSTALLED ITEMS:

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY THE MANUFACTURER, HAVE NOT BEEN INSPECTED BY THIRD PARTY AND ARE NOT CERTIFIED BY THE STATE MODULAR LABEL. NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIAL THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL. CODE COMPLIANCE MUST BE DETERMINED AT THE LOCAL LEVEL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
5. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS.
6. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATELINE(S) - (MULTI-UNITS ONLY).
7. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY).
8. FIRE INSPECTION.
9. GLAZED OPENING PROTECTION (SEE GENERAL NOTE NO. 8)
10. BUILDING DRAINS, CLEANOUTS, & HOOK-UPS TO PLUMBING SYSTEM.
11. RESTROOM DESIGN & CONSTRUCTION.

STRUCTURAL LOAD LIMITATIONS:

BUILDING RISK CATAGORY: II

FLOOR DEAD AND LIVE LOAD:
A. DEAD LOAD = 12 PSF (AVERAGE)
B. UNIFORM LIVE LOAD = 50 PSF
C. CONCENTRATED LIVE LOAD = 2000 LB. OVER 30 INCH x 30 INCH AREA LOCATED ANYWHERE ON FLOOR. NOTE: UNIFORM AND CONCENTRATED LIVE LOADS ARE NOT SIMULTANEOUSLY APPLIED.

ROOF DEAD AND LIVE LOAD:
A. DEAD LOAD = 13 PSF (AVERAGE)
B. LIVE LOAD = 30 PSF

ROOF SNOW LOAD:
A. GROUND SNOW LOAD: Pg = 40 PSF
B. FLAT-ROOF SNOW LOAD: Pf = 30.8 PSF
C. SNOW EXPOSURE FACTOR: Ce = 1.0
D. SNOW IMPORTANCE FACTOR: Is = 1.0
E. SNOW THERMAL FACTOR: Ct = 1.1
F. ROOF SLOPE FACTOR: Cs = 1.0
G. SLOPED ROOF SNOW LOAD: Ps = Pf x Ce
H. DESIGN IS BASED ON FULL OR PARTIALLY EXPOSED ROOF PER ASCE 7-16.

WIND LOAD:
A. BASIC WIND SPEED (3-SEC GUST): V = 130 MPH
B. ASD WIND SPEED (3-SEC GUST): Vasd = 101 MPH
C. RISK CATEGORY: II
D. WIND EXPOSURE CATEGORY: C
E. INTERNAL PRESSURE COEFFICIENT: GCpi = 0.18
F. COMPONENT & CLADDING BASIC DESIGN PRESSURES (ASD DESIGN PRESSURE) FOR ROOF ANGLES 0 TO 7 DEGREES:
- WALL ZONE 5: P = +/-49.2 PSF (Pasd = +/-29.5 PSF)
- WALL ZONE 4: P = +/-39.9 PSF (Pasd = +/-24.0 PSF)
- ROOF ZONE 3: P = -105.4 PSF (Pasd = -63.2 PSF)
- ROOF ZONE 2: P = -77.3 PSF (Pasd = -46.4 PSF)
- ROOF ZONE 1: P = -58.6 PSF (Pasd = -35.1 PSF)
- ROOF ZONE 1': P = -33.6 PSF (Pasd = -20.2 PSF)

G. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.
H. BUILDING DESIGN IS BASED ON "ENCLOSED" CLASSIFICATION.
I. BUILDING MEAN ROOF HEIGHT SHALL NOT EXCEED 15 FEET.

SEISMIC LOAD:
A. RISK CATEGORY IS II
B. SEISMIC IMPORTANCE FACTOR IS 1.0
C. SEISMIC SITE CLASS IS D.
D. SPECTRAL RESPONSE COEFFICIENTS:
Ss = 0.101 S1 = 0.042
Sds = 0.108 Sd1 = 0.067
E. SEISMIC DESIGN CATEGORY IS B.
F. SEISMIC FORCE RESISTING SYSTEM IS A15
G. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE
H. RESPONSE MODIFICATION FACTOR R = 6.5.
I. SEISMIC RESPONSE COEFFICIENT Cs = 0.04
J. DESIGN BASE SHEAR V = 1853 LBS

FLOOD LOAD:
THE MODULAR BLDG UNITS ARE NOT DESIGNED TO BE SUBMERGED OR SUBJECT TO WAVE ACTION. IF INSTALLED IN A FLOOD PLAIN, THE MODULAR BUILDING UNITS MUST BE INSTALLED ABOVE THE MINIMUM BASED FLOOD ELEVATION DERIVED FROM APPROPRIATE FLOOD ELEVATION MAPS FOR THE BUILDING SITE OR SET ON A FOUNDATION DESIGNED TO FLOOD LEVELS.

ROOF RAIN LOAD (IPC APPENDIX B):
A. RAIN INTENSITY: i = 4.3 INCHES/HOUR

ELECTRICAL NOTES:

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "CLOSET STORAGE SPACE" AS DEFINED BY NEC ARTICLE 410.2.
3. WHEN WATER HEATERS ARE INSTALLED, THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
4. HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
5. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH ARTICLES 110.9 & 110.10 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
6. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, OR CABLE CONNECTORS.
8. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (WP) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED. THE RECEPT ITSELF SHALL ALSO BE LISTED FOR DAMP AND WET LOCATIONS AS PER NEC.
9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.

SPECIAL CONDITIONS & REQUIREMENTS:

- ANY SITE ADDED STRUCTURES MUST BE INDEPENDENT OF THE FACTORY BUILDING UNLESS THE ENTIRE BUILDING IS REVALUATED BY THE SITE ENGINEER.
- TYPICAL FOUNDATION LAYOUT SHOWN IN THIS PACKAGE IS TO AID THE SITE ENGINEER/ARCHITECT FOR LOCATIONS OF REQUIRED SUPPORTS. ACTUAL FOUNDATION MUST BE DESIGNED TO SITE CONDITIONS FOR ALL APPLICABLE LOADS. THIS INCLUDES BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOUNDATION, SEISMIC DESIGN AND ATTACHING THE BUILDING TO THE FOUNDATION, ALONG WITH THE RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNWARD FORCES IN BOTH DIRECTIONS. REFER TO BRACING PAGE FOR APPLICABLE BRACING/SEISMIC LOADS FOR ATTACHING THE BUILDING TO FOUNDATIONS.
- ENGINEER SEAL APPLIES ONLY TO FACTORY MANUFACTURED STRUCTURAL PORTION OF THE BUILDING SEAL DOES NOT APPLY TO SITE INSTALLED ELEMENTS OR PORTIONS BUILT ON SITE SUCH AS, BUT NOT LIMITED TO: FOUNDATION, BRACING TIE DOWN TO FOUNDATION, EXTERIOR STEPS, OR OTHER SITE WORKS. SITE WORK MUST BE DESIGNED BY OTHERS FOR SITE CONDITIONS, UNDER LOCAL JURISDICATION.

MECHANICAL NOTES:

1. ALL SUPPLY AIR REGISTERS SHALL BE 10 INCHES x 10 INCHES ADJUSTABLE WITH 8 INCHES x 18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-6 MINIMUM INSULATION EXCEPT DUCTS EXPOSED TO VENTILATED ATTICS AND CRAWL SPACES SHALL HAVE R-8 INSULATION.
2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN (FOR UNRATED DOORS)
3. HVAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FREASH AIR INTAKES PROVIDING 5 CFM PER OCCUPANT & 0.06 CFM PER S.F OF BLDG. AREA PER SECTION 403.3 OF IMC
4. VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY WHEN BUILDING IS OCCUPIED.
5. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
6. THERMOSTATS MUST BE PROGRAMMABLE

WINDOW & DOOR SPECIFICATIONS:

1. DOUBLE PANE WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE COMCHECK ENERGY CALCULATIONS FOR THE MAXIMUM ALLOWED U-FACTOR AND SHGHC.
2. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR WINDOWS IS 0.3 CFM PER SQUARE FEET OF WINDOW AREA.
3. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR EXTERIOR DOORS IS 0.3 CFM PER SQUARE FEET OF DOOR AREA.

PLUMBING NOTES:

1. TOILETS SHALL BE ELONGATED WITH NONABSORBENT OPEN FRONT SEATS.
2. REST ROOM WALLS SHALL BE COVERED WITH NONABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F. FLOORS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES.
3. THIS BUILDING SHALL BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE.
4. ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.
5. WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR. T & P RELIEF VALVE WITH DRAIN TO THROUGH AN AIR GAP 2" to 6" ABOVE PAN AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.
6. DWV SYSTEM SHALL BE PVC - DWV.
7. WATER SUPPLY LINES SHALL BE CPVC AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.
8. WATER CLOSETS ARE TANK TYPE UNLESS OTHERWISE SPECIFIED.
9. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
10. SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120F (48.8C).
11. THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL APPROVAL.
12. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION.
13. WATER, SOIL, AND WASTE PIPES IN UNCONDITION SPACES SHALL BE INSULATED AND PROTECTED FROM FREEZING.
14. WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED BY CODE ARE NOT PROVIDED WITHIN THE BLDG. A HANDICAPPED ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BLDG. OWNER AND IS SUBJECT TO THE THE REVIEW & APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE.
15. CUSTOMER ASSUMES ALL RESPONSIBILITY FOR REQUIRED PLUMBING FIXTURES WHEN NOT SHOWN ON PLAN.
16. TEMPERATURE ACTUATED MIXING VALVES WHICH ARE INSTALLED TO REDUCE WATER TEMPERATURE TO DEFINE LIMITS SHALL COMPLY WITH ASSE 1017.
17. TEMPERED WATER SHALL BE SUPPLIED THROUGH A WATER TEMP LIMITING DEVICE THAT CONFORMS TO ASSE 1070 AND SHALL LIMIT THE TEMPERED WATER TO A MAX OF 110F(43C).
18. WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED PER CODE ARE NOT PROVIDED WITHIN THE BUILDING, A HANDICAPE ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER AND IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE.

ACCESSIBILITY NOTES:

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.
3. WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED AT LEAST ONE TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (I.E. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH; CLOTHES RODS OR COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM WHEN DISTANCE FROM WHEEL CHAIR TO ROD EXCEEDS 10 INCHES). SHELVES IN KITCHENS OR TOILET ROOMS SHALL BE 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE IN FLOOR.
4. CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 48 INCHES ABOVE THE FLOOR. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
5. WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOM, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.
6. ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.
7. FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
8. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (I.E. LEVER - OPERRATED, PUSHTYPE, U-SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.

BUILDING DESIGN PARAMETERS:

1.	USE/OCCUPANCY:	EDUCATION
2.	CONSTRUCTION TYPE:	VB
3.	SPRINKLER SYSTEM:	NO
4.	BUILDING AREA:	1750 S.F.
5.	BUILDING HEIGHT:	≤ 15 FEET
6.	NUMBER OF STORIES:	1
7.	NUMBER OF MODULES:	2
8.	OCCUPANT LOAD 76 BASED ON 20 S.F. PER PERSON (NET).	
9.	EXTERIOR WALL FIRE RATING:	NOT RATED

10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY IBC 602 AND SECTION 705.3.
11. ENGERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS.
12. MANUFACTURERS DATA PLATE, STATE LABELS AND THIRD PARTY LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

CODE SUMMARY:

STATE:	BUILDING/FIRE/FUEL:	ELECTRICAL:	MECHANICAL:	PLUMBING:	ACCESSIBILITY:	ENERGY:
VIRGINIA	2018 VA. UNIFORM STATEWIDE BLDG. CD. 2018 IBC	2017 NEC	2018 IMC	2018 IPC	ICC/ANSI A117.1 - 2009	2018 IECC

COVER SHEET	SHEET: 1 OF 5
FLOOR PLAN	SHEET: 2 OF 5
RISERS & CALCS	SHEET: 3 OF 5
ELEVATIONS	SHEET: 4 OF 5
CROSS SECT.	SHEET: 5 OF 5
FOUNDATION	SHEET: 1 OF 1

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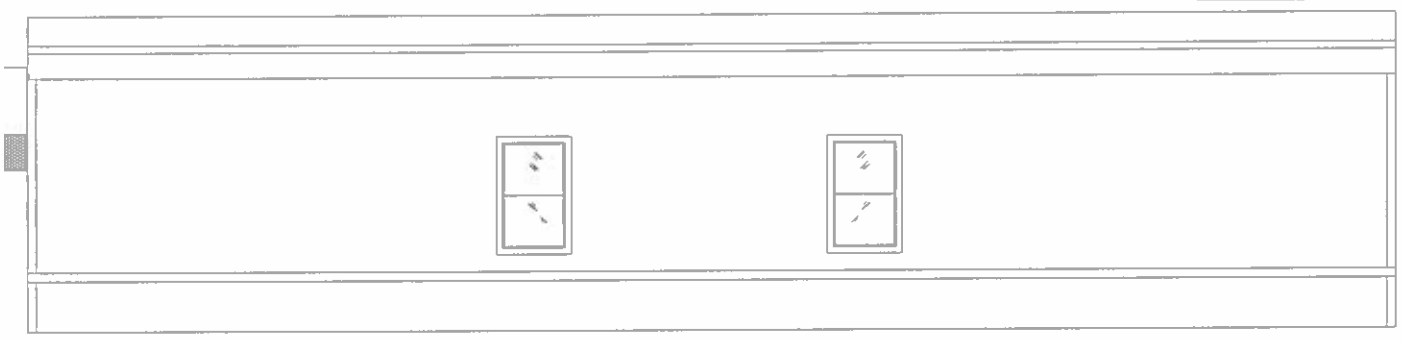
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SERIAL NUMBER: FSSI-10013AB

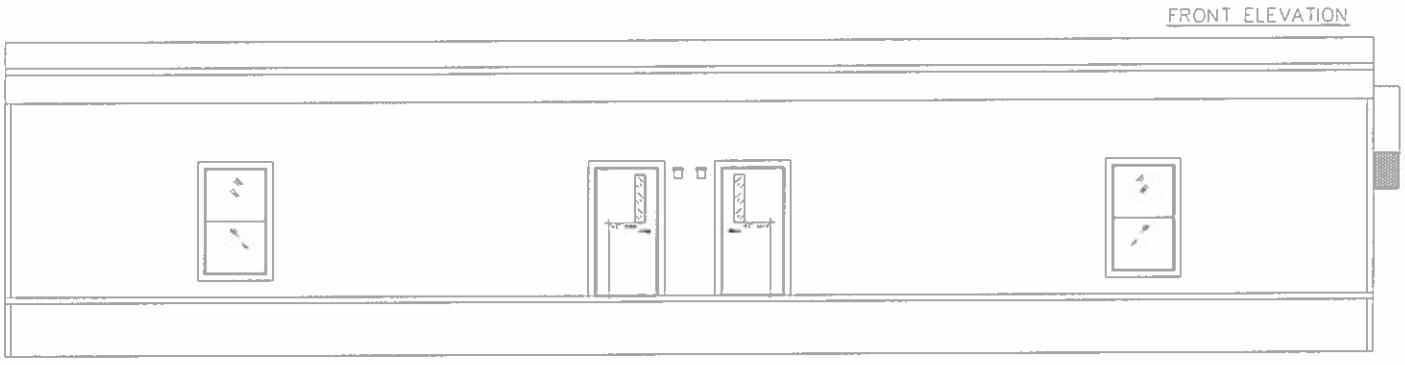
EMC PLAN NO: FSS-10013AB	STATES: VA
DATE: MARCH 3, 2022	DESTINATION: ISLE OF WIGHT COUNTY, VA
DRAFTSMAN: BRANDON R. DOYLE	SIZE: 27'-4" x 64' (DOUBLE-WIDE)
SCALE: NO SCALE	REVISIONS: N/A
CODES: 2018 IBC (VA AMENDS)	PLAN NO: FSS-10013AB VA
COVER SHEET	SHEET: 1 OF 5

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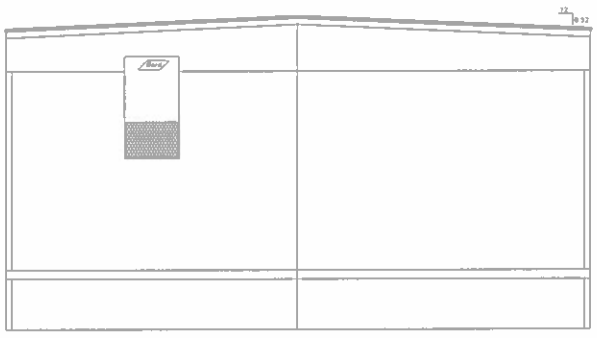
REAR ELEVATION



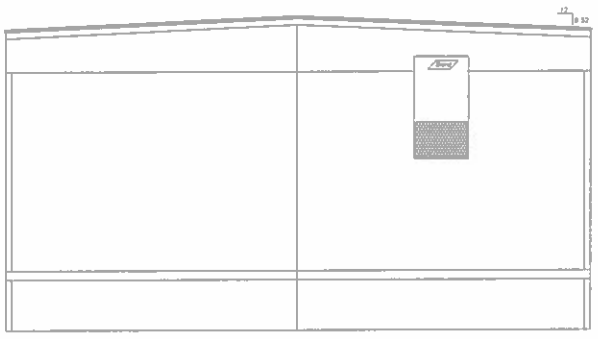
FRONT ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



ELEVATION NOTES (TYP.):

SEE-CROSS SECTION FOR METHOD OF ROOF VENTILATION

ACCESSIBLE RAMP(S), STAIR(S), AND HANDRAILS ARE SITE INSTALLED, DESIGNED BY OTHERS, AND SUBJECT TO LOCAL JURISDICTION

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR AREA, AND AN 18" X 24" MINIMUM CRAWL SPACE ACCESS. SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

ELEVATIONS SHOWN ON THIS PAGE REPRESENT BASIC COMPONENTS & ARE NOT INTENDED TO BE ALL INCLUSIVE NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BLDG. SITE BUILT STOOPS, STEPS, DECKS PORCHES, HANDRAILS, AND/OR SIMILAR ITEMS MUST BE PROVIDED BY OTHERS ON SITE FOR COMPLIANCE WITH APPLICABLE CODES. COMPLIANCE WITH ALL APPLICABLE CODES PER LOCAL AUTHORITY HAVING JURISDICTION, WHETHER DETAILED IN THIS SET OR NOT, MUST BE MET

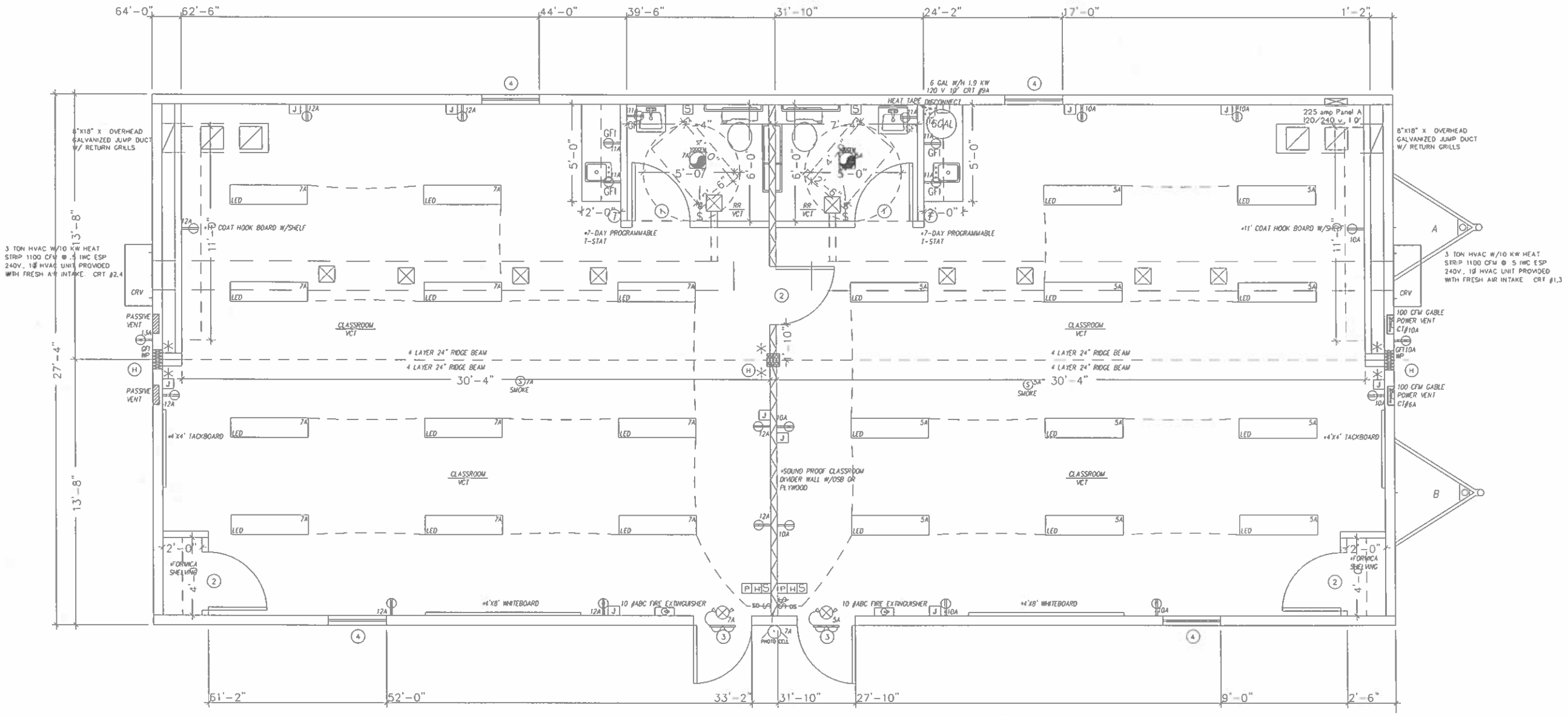
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SERIAL NUMBER: FSSI-10013AB

EMC PLAN NO FSS-10013AB	STATES VA
DATE: MARCH 3, 2022	DESTINATION ISLE OF WIGHT COUNTY, VA
DRAFTSMAN BRANDON R DOYLE	SIZE 27'-4" x 64' (DOUBLE-WIDE)
SCALE: NO SCALE	REVISIONS: N/A
CODES: 2018 IBC IVA AMENDS	PLAN NO FSS-10013AB VA
ELEVATIONS	SHEET: 4 OF 5

FP: M:\Drafting\Shared DWG\BRANDON'S DRAWINGS\ENGINEERED PLANS\FSSI-10013AB IVA1.dwg



SYMBOL SCHEDULE:

- FLOUR LIGHT FIXTURE W/ 2 - 25W TUBES
- STD PORCH LIGHT 20 WATT
- EXIT/EMERGENCY LIGHT COMBO W/ BATTERY BACKUP
- 120V. DUPLEX RECEPTACLE
- JUNCTION BOX NON-POWERED
- GFI 120V. DUPLEX WEATHER PROOF RECEPT
- THERMOSTAT
- STANDARD LIGHT SWITCH
- OCCUPANCY SENSOR SWITCH
- 100 AMP ELECTRICAL PANEL BOX 120/208+
- POWERED CABLE VENT FAN
- FIRE ALARM/PULL BOX
- FIRE ALARM/HORN BOX
- FIRE ALARM/STROBE BOX
- PASSIVE GABLE VENT FAN
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- THROUGH WALL MOUNT HVAC

COLUMN STRAPPING SCHEDULE:

- (A) (2) 2x4 SYP #2 THIS HALF.
- (B) (2) 2x4 SYP #2 EACH HALF.
- (C) (3) 2x4 SYP #2 THIS HALF.
- (D) (3) 2x4 SYP #2 EACH HALF.
- (E) (4) 2x4 SYP #2 THIS HALF.
- (F) (4) 2x4 SYP #2 EACH HALF.
- (G) (5) 2x4 SYP #2 THIS HALF.
- (H) (3) 2x6 SYP #2 EACH HALF.
- * WITH RIDGE BEAM BEARING STIFFENER

NOTES:
1. ALL COLUMN STUDS SHALL BE GLUE/NAILED TOGETHER. PVA GLUE WITH 100% COVERAGE SHALL BE USED.
2. INSTALL TWO STEEL STRAPS AT EACH STUD OF EACH COLUMN.
3. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED.

DOOR & WINDOW SCHEDULE:

1. INTERIOR DOOR: 36"x80" SOLID-CORE, 6-PANEL DOOR WITH STEEL JAMB, PRIVACY LOCK, REDI-FRAME, OAK & BRONZE FINISH
2. INTERIOR DOOR: 36"x80" SOLID-CORE, 6-PANEL DOOR WITH STEEL JAMB, KEYED LOCK, REDI-FRAME, OAK & BRONZE FINISH.
3. EXTERIOR DOOR: 36"x80" STEEL DOOR, STEEL FRAME WITH 6"x30" VIEW BLOCK, GRADE 2 ACCESS, PANIC & STANDARD CLOSURE.
4. WINDOW: 36"x60" VERTICAL SLIDE, BRONZE METAL FRAME / EGRESS WINDOW, W/ LOW E INSULATED GLASS.

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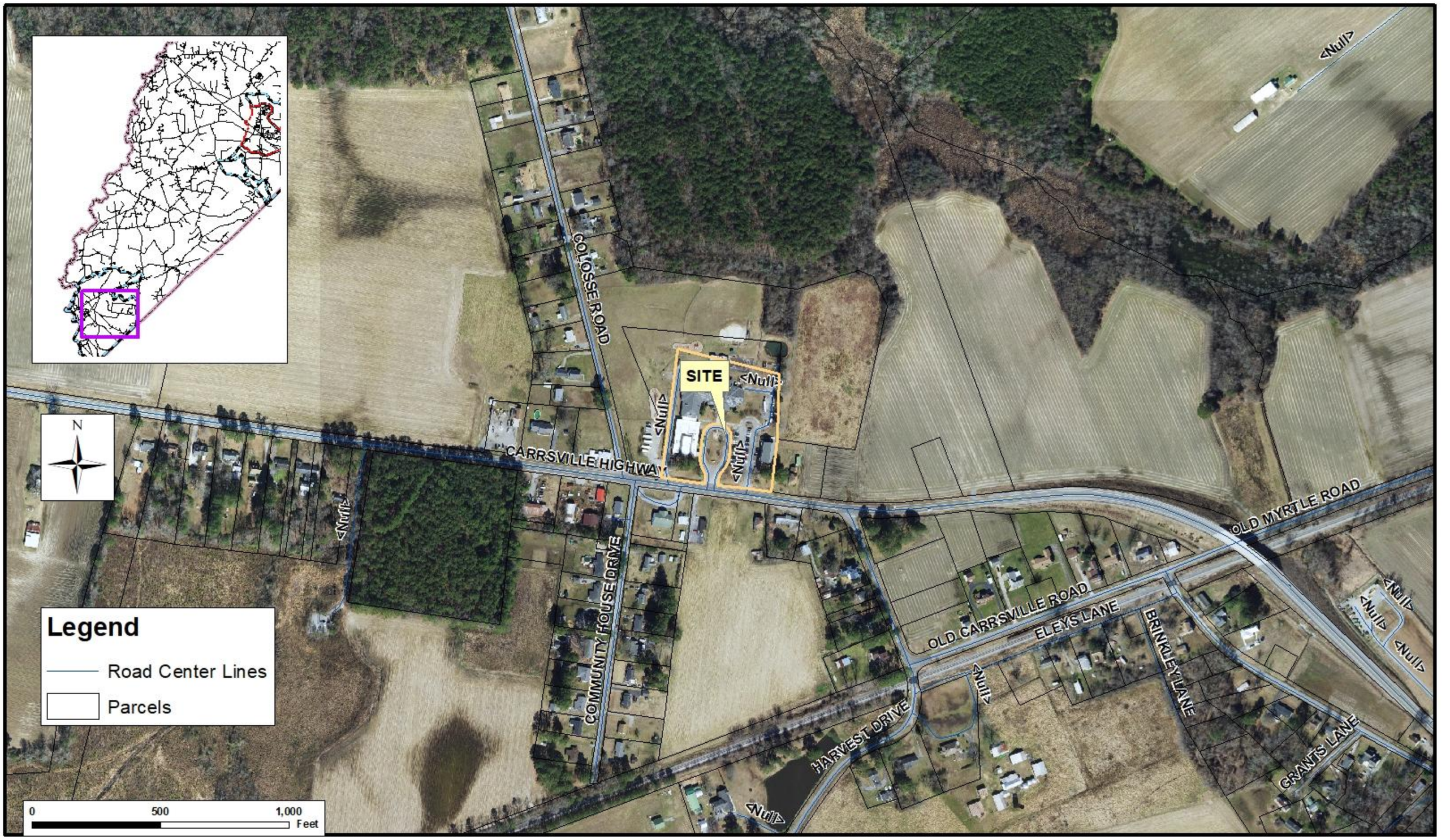
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EMC PLAN NO: FSS-10013AB	STATES: VA
DATE: MARCH 3, 2022	DESTINATION: ISLE OF WIGHT COUNTY, VA
DRAFTSMAN: BRANDON R. DOYLE	SIZE: 27'-4" x 64' (DOUBLE-WIDE)
SCALE: NO SCALE	REVISIONS: N/A
CODES: 2018 IBC (VA AMENDS)	PLAN NO: FSS-10013AB VA
FLOOR PLAN	SHEET: 2 OF 5

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CUP-3 -24 - Conditional Use Permit- Location Map



CUP-3 -24 - Conditional Use Permit- Location Closeup Map



CUP-3-24 - Conditional Use Permit- Land Use Map



CUP-3-24 - Conditional Use Permit- Zoning Map

