FUSS & O'NEILL

January 6, 2022

Rod Melanson, Planning Director
Town of Topsham
100 Main Street
Topsham, ME 04086

RE: Topsham Meadow Solar Station, Topsham, Maine
Fuss & O'Neill Reference No. 20190588.C10

Dear Rod:

On behalf of Topsham Meadow Solar Station, LLC, we have prepared a summary of the materials submitted to the Town pursuant to comments received from the Topsham Planning Board during their December 9, 2021 meeting. There were three major items discussed by the Planning Board that required follow-up coordination prior to the January 13, 2022 Planning Board meeting:

- Updated Sound Assessment
- Legal rights to utilize and improve Branch Road
- Contractor parking and laydown areas

Updated Sound Assessment

The initial sound assessment, prepared by SGC Engineers and dated July 2, 2021, was updated on December 21, 2021 pursuant to comments received by the MDEP. The revised Sound Assessment provides additional information on the noise generated from the various pieces of equipment proposed and a table indicating the minimum distances each piece of equipment must be located from property lines to comply with the Town's noise requirements.

The detail of the Battery Storage, Transformer, and Inverter equipment pad (sheet CD-507) has also been revised to show a combined inverter/converter unit and one HVAC unit on each end of the battery storage containers.

Legal Rights to Utilize and Improve Branch Road

The applicant has provided a legal opinion from Shaheen & Gordon, Attorneys at Law, dated December 22, 2021 regarding Branch Road. Their legal opinion letter and the Memorandum of Solar Ground Lease Agreement have been provided to demonstrate the legal ability of the applicant to utilize Branch Road for access to the project and to reasonably improve the road.

The legal opinion provided states the easement holder "may improve the easement as necessary to carry out the use of the easement as long as it is done in a reasonable manner". Furthermore, the

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Kennebunk, ME 04043
207.363.0669

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California
Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

legal opinion concludes that the applicant "may reasonably improve the easement to allow for use by commercial vehicles and commercial utilities even if such uses were not contemplated at the time of the original grant of the easement".

Contractor Parking and Laydown Areas

The applicant has coordinated with an Engineering, Procurement, and Construction (EPC) contractor to review the plans and solicit their opinion on the proposed laydown areas. Their response indicated a typical "rule-of-thumb" is to provide approximately 1-acre of laydown and parking area for every 10 MW of DC power generated. For the Topsham Meadow Solar Station, this would equate to approximately 2.25 acres of laydown and parking area. The EPC contractor also estimated these areas would need to accommodate parking for 15-30 vehicles.

We have prepared an exhibit that shows the potential location of a temporary laydown area near the entrance to the project. This temporary laydown area depicts 40 contractor parking spaces and a construction trailer; and is approximately 1.54 acres. With this temporary laydown area added to the two laydown areas previously proposed on the plans, the total amount of the laydown areas are 2.95 acres. Any temporary laydown and parking areas that are constructed within the project will be stabilized and re-vegetated in accordance with the approved erosion and sediment control plan.

As well, we respectfully request that the final layout and design of any temporary laydown areas are allowed as a condition of approval to be approved by Town staff prior to construction.

We look forward to continuing our discussion of the Topsham Meadows Solar Station with the Planning Board at their January 13, 2022 meeting. Please contact me at 207-363-0669, ext. 2315 or Richard Lundborn, P.E. at 207-363-0669, ext. 2314 with any questions.

Sincerely,

James Lowery, PE
Sr. Project Manager

enclosures:

c: Topsham Meadow Solar Station, LLC

December 21, 2021

Stefan Bird
Glenvale LLC
179 Green Street, Suite 100
Boston, MA 02130

SUBJECT: Topsham Meadow Solar Station Sound Assessment Rev 1

Stefan,

This letter provides a sound assessment for typical electrical equipment that will be used at Glenvale LLC's solar station in Topsham, Maine. It provides minimum distances required to comply with sound level requirements specified by the State of Maine and the Town of Topsham.

Sound Level Limits

In the State of Maine the sound level limits are set forth by the Maine Department of Environmental Protection (MDEP) in Chapter 375.10 of their regulations. These limits apply to towns that do not have sound ordinances or whose ordinances are 5 dBA or more higher than the state limit. The ordinances of the Town of Topsham will be used because they are more restrictive than the state limits.

Property Lines

According to ordinance §225-37 of the Town of Topsham, the most restrictive sound pressure level limits apply for properties in or adjacent to a residential area. The limits are 55 dBA from 7 AM to 10 PM, and 45 dBA from 10 PM to 7 AM.

Equipment

The project contains three different types of equipment areas. The solar array area, the substation, and the battery storage area. No data is available for analysis of octave noise levels to determine if tonal noise is present.

The project will only generate power during the day, but there is a possibility of the hours of operation reaching beyond the 7 AM to 10 PM range specified by the Town of Topsham. Additionally, the HVAC will operate during the night. The 45 dBA nighttime limit was used to calculate the minimum distances.

The following equipment types typically generate noise in the solar array area: transformers, inverters, and solar trackers. The transformers at this site do not include forced cooling. This results in their noise production being negligible. The inverters produce a 67 dBA sound pressure level at 10m. The solar tracker models have not been finalized, but they typically produce 50 dBA at 1m.

The following equipment types typically generate noise in the substation area: transformers and HVAC. The substation will not contain a transformer. The standard HVAC's produce 69 dBA at 5m and the quiet HVAC's produce 62 dBA at 5m. One or two quiet HVAC's will be used. The substation layout will be optimized to allow the HVAC's to be located along the edge furthest from the property line.

The following equipment types typically generate noise in the battery storage area: transformers, inverters/converters, and HVAC. The transformers at this site do not include forced cooling. This results in their noise production being negligible. The inverters/converters produce 67 dBA at 10m. The standard HVAC's produce 69 dBA at 5m and the quiet HVAC's produce 62 dBA at 5m. Standard or quiet HVAC's will be used as needed, depending on the location.

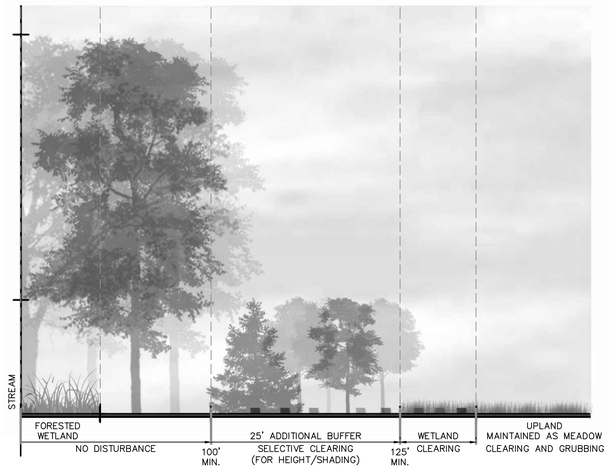
Minimum Distances

Calculations were completed following ISO 9613-2 to determine the minimum distances required between the equipment and the property lines. It was assumed that the ground is flat and hard, and the equipment will operate at night.

Equipment	Min. Distance for 1 Unit (ft.)	Min. Distance for 2 Units in Close Proximity (ft.)
Transformer	0	0
Inverter/ Converter	150	200
Solar Tracker	5	9
Standard HVAC	90	120
Quiet HVAC	33	63

Sincerely,
Peter Fitzgerald

Disclaimer: SGC Engineering is a licensed engineering company, and Peter Fitzgerald is a licensed Electrical Engineer, but neither SGC Engineering nor Peter Fitzgerald are licensed in Acoustical Engineering.



STREAM BUFFER AND SITE CLEARING ZONES

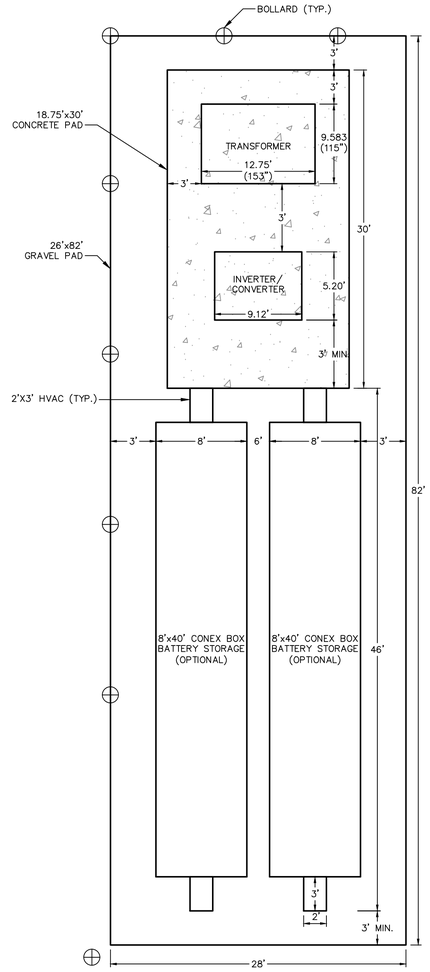
NOT TO SCALE

NOTES:

SELECTIVE CLEARING, CLEARING, AND CLEARING AND GRUBBING LIMITS ARE DEPICTED ON SITE PREPARATION PLANS. CLEARING SEQUENCE, AS OUTLINED IN THE CONSTRUCTION SEQUENCE MUST BE FOLLOWED.

THE FOLLOWING PARAMETERS SHALL APPLY FOR CLEARING DURING CONSTRUCTION:

1. 100 FOOT BUFFER – NO DISTURBANCE WITHIN 100 FEET OF STREAM BOUNDARY, EXCEPT AS INDICATED.
2. 25 FOOT ADDITIONAL BUFFER – SELECTIVE CLEARING – TREES ARE TO BE CUT TO A MAXIMUM HEIGHT OF 15 FEET. TREES AND UNDERSTORY LESS THAN 15 FEET IN HEIGHT SHALL REMAIN TO THE MAXIMUM EXTENT PRACTICABLE. STUMPS SHALL NOT BE REMOVED.
3. WETLAND – CLEARING – TREES ARE TO BE CUT AT GROUND LEVEL. UNDERSTORY AND BRUSH LESS THAN 5 FEET IN HEIGHT SHALL REMAIN TO MAXIMUM EXTENT PRACTICABLE. STUMPS SHALL NOT BE REMOVED.
4. UPLAND MAINTAINED AS MEADOW – CLEARING AND GRUBBING – TREES, UNDERSTORY, AND STUMPS SHALL BE REMOVED.



NOTE:
1. EXACT STUB UP LOCATIONS SHALL BE DETERMINED BASED ON EQUIPMENT SHOP DWGS. FOR PRICING PURPOSES CONTRACTOR SHALL FIGURE FARTHEST LOCATION.
2. PAD ORIENTATION SHOWN FOR SPACING BETWEEN PADS AND PAD DIMENSIONS. ORIENTATION SHALL BE PER SITE PLAN.

GENERAL NOTES:
1. FINAL ARRANGEMENT OF EQUIPMENT PAD SHALL BE BASED ON APPROVED SHOP DRAWINGS.
2. EQUIPMENT INSTALLED PER MANUFACTURERS INSTALLATION AND OPERATIONS MANUAL. MAINTAIN REQUIRED CLEARANCES.
3. EQUIPMENT SHALL BE DESIGNED AND INSTALLED TO MEET REQUIREMENTS OF THE IBC, UBC, NEC AND LOCAL BUILDING CODES.
4. EQUIPMENT SHALL BE ANCHORED BASED ON MANUFACTURERS INSTRUCTIONS.
5. WORKING SPACE SHALL PERMIT AT LEAST A 90° OPENING OF ALL HINGED DOORS. REFERENCE NEC 110.26 (A)(1)
6. ALL EQUIPMENT RATED FOR OUTDOOR USE SHALL MEET APPROPRIATE NEMA CERTIFICATIONS FOR OUTDOOR LOCATIONS.
7. GROUND GRID, #4/0 BARE COPPER CONDUCTOR TO BE BURIED 9" BELOW GRADE.
8. GROUND GRID PIGTAILS TO ALL EQUIPMENT, #4/0 BARE COPPER CONDUCTOR. SEE MANUFACTURERS DRAWINGS FOR EXACT EQUIPMENT GROUNDING CONNECTION LOCATIONS.
9. ALL EQUIPMENT DIMENSIONS AND SET–UP LOCATION SHALL BE PER MANUFACTURERS DRAWING AND SHALL BE APPROVED BY PROTECH FIELD ENGINEER.
10. PROVIDE CONDUIT BUSHINGS AND DUCT SEAL FOR ALL CONDUITS ENTERING FROM BELOW GRADE.

BATTERY STORAGE SYSTEMS, TRANSFORMER, & INVERTER EQUIPMENT PLAN

NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
6.	12/21/2021	REVISED PER DEP COMMENTS	JVA	JBL/RRL
5.	11/17/2021	REVISED PER TOWN COMMENTS	JVA	JBL/RRL
4.	6/30/2021	MEDEP SLODA RESUBMISSION	JVA	JBL/RRL
3.	7/12/2021	MEDEP SLODA RESUBMISSION	JVA	JBL / RRL
2.	5/28/2021	MEDEP SLODA SUBMISSION	JVA	DM / RRL
1.	3/18/2021	MEDEP PRE-APPLICATION	JVA	RRL

STATE OF MAINE
RICHARD L. LUNDBORN
No. 13931
LICENSED PROFESSIONAL ENGINEER
12-22-2021

SCALE: HORZ.: N/A VERT.: N/A
DATUM: HORZ.: NAD83 VERT.: NGVD29

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TOPSHAM MEADOW
SOLAR STATION
DETAILS
TAX MAP R02 LOTS 63, 72 & 93
TOPSHAM MAINE

PROJ. No.: 20190588.C10
DATE: 12/21/2021

CD-507

SHEET 33 OF 37

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Shaheen & Gordon
ATTORNEYS AT LAW

shaheengordon.com

353 Central Ave, Suite 200
P.O. Box 977 | Dover, NH 03821

Office 603-749-5000
Fax 603-749-1838

Christopher E. Ratté **Attorney in NH and ME**
cratte@shaheengordon.com

December 22, 2021

Aidan Foley
Topsham Meadow Solar Station LLC
c/o Glenvale LLC
179 Green Street, Suite 100
Boston, MA 02130

RE: Branch Road, Topsham, Maine

Dear Aidan:

The following is my opinion of your right to use and improve the easement over the discontinued road known as Branch Road to access the parcel you have leased from David R. Anderson and Kathleen M. Anderson located at 68 Branch Road (Parcel R02-063), Topsham, Maine (the "Property").

The Andersons acquired the Property by deed dated August 19, 1999, recorded in the Sagadahoc County Registry of Deeds at Book 1727, Page 206. About the same time, the Andersons also acquired an easement from George M. Couture over his land to access the Property by Easement deed dated September 24, 1999, recorded in said Registry of Deeds at Book 1727, Page 212 (the "Easement"). The Easement states in part:

> [To the Andersons] their heirs and assigns, an easement, running from Old Lisbon Road to land to be purchased by [the Andersons] for ingress and egress by foot and vehicles and for the placement of utilities over the discontinued Branch Road, as it crosses the [Couture] property...

As an *easement appurtenant* to the Property, the Easement may be sold, transferred, leased or otherwise assigned to a third party in connection with the Property, or a division thereof. The Andersons have the right to lease the use of the Easement to you as long as it is together with the lease of the Property itself.

It is well settled law in Maine that an easement holder, known as the *dominant estate*, may improve the easement as necessary to carry out the use of the easement as long as it is done in a reasonable manner. Kaler v. Beaman, 49 Me. 207. And as long as it does not overburden the underlying land, known as the *servient estate*. Poire v. Manchester, 506 A.2d 1160 (Me. 1986). This is true even if the use of the easement has increased. Gutchea v. Becton, 585 A.2d 818 (Me. 1991). It is also true if the use has been modified or increased due to a division of the dominant

property, as long as it remains reasonable. Herrick v. Marshall, 66 Me. 435. Each parcel in the division shares equal right, title and use of the appurtenant easement. Cleaves v. Braman, 103 Me. 154.

In this case, the Easement specifically allows for travel by vehicles and placement of utilities. The holder of the Easement has the right to reasonably improve the Easement to allow for these uses, even if the use has increased or modified since the original grant of the Easement.

It is my opinion that you may use the Easement along with your leasehold rights to the Property, and that you may reasonably improve the Easement to allow for use by commercial vehicles and commercial utilities even if such uses were not contemplated at the time of the original grant of the Easement. Such uses are reasonable under today's standard of land use and will not overburden the servient land.

Sincerely,

/s/ Christopher E. Ratté

Christopher E. Ratté
Attorney at Law

MEMORANDUM OF SOLAR GROUND LEASE AGREEMENT

In accordance with 33 M.R.S.A Section 201, notice is hereby given of a certain Solar Ground Lease Agreement ("Lease") dated as of March 12, 2020 (the "Effective Date") by and between **David R. Anderson and Kathleen M. Anderson**, with a mailing address of 7 Cleave Street, Topsham, Maine 04086 (**"Landlord"**) and **Topsham Meadow Solar Station LLC**, a Massachusetts limited liability company whose address is c/o Glenvale LLC, 179 Green Street, Suite 100, Boston, Massachusetts 02130 (**"Tenant"**).

1. SOLAR PROJECT AND LEASED PREMISES: The "Solar Project" is the Topsham Meadow Solar Station solar-powered electrical power generation and transmission project located wholly or partially on certain real estate owned by Landlord in Topsham, Sagadahoc County, Maine and more particularly described on Exhibit A attached hereto ("Landlord's Property"). The "Leased Premises" as used in the Lease means that portion of Landlord's Property generally depicted on Exhibit B attached hereto. The final "Lease Boundary Lines" are to be determined by a final as-built survey of the Solar Project, subject to Landlord's approval as more particularly set forth in the Lease; and Exhibit B to this Memorandum of Solar Ground Lease Agreement shall be amended and supplemented upon confirmation of the final Lease Boundary Lines.

2. TERM: The Term of the Lease is comprised of the following phases: The Development Period, Commercial Operation Period, and the Restoration Period:

A. DEVELOPMENT PERIOD. The initial development period is one (1) year commencing effective November 15, 2019 (the "Initial Development Period"). The Initial Development Period may be extended by Tenant for up to four (4) successive periods of one (1) year each (each an "Extended Development Period"), upon the conditions set forth in the Lease.

B. COMMERCIAL OPERATION PERIOD. The initial commercial operation period is for a period of twenty (20) years commencing (i) the first day of the month after the Solar Project first produces and delivers electrical energy to the utility electrical network system or any other consumer or buyer, or (ii) the first day the month following the day the Solar Project has completed commissioning and performance testing, and has been accepted by Tenant, whichever is earlier. The Initial Commercial Operation Period may be extended by Tenant for up to ten (10) successive renewal terms of five (5) years each upon the terms and conditions set forth in the Lease.

C. RESTORATION PERIOD. Tenant agrees to remove within six (6) months after the termination of the Lease at Tenant's sole cost and expense, all of Tenant's Property (as that term is defined in the Lease), upon the conditions set forth in the Lease.

3. SOLAR PROJECT REDUCTION. Tenant has the right to reduce the size of the Leased Premises or the Solar Project at any time during the Term upon the terms and conditions set forth in the Lease.

4. EASEMENTS. Tenant has (a) the exclusive right to the flow of sunshine, light, solar radiation, and solar energy resources to and across the Leased Premises; (b) non-exclusive right of access

(including vehicular and pedestrian ingress and egress) and utility access over, under and across Landlord's Property by means of any existing roads as of the Effective Date and by such other roads as Tenant may construct from time to time on Landlord's Property at locations reasonably agreed in advance by Landlord and Tenant, for the benefit of and for purposes incidental to the Solar Project; and (c) the exclusive right over, under and across Landlord's Property for audio, visual, view, light, flicker, noise, vibration, shadow, air turbulence, wake, electromagnetic and any other effects attributable to the Solar Project or Tenant's use of the Leased Premises.

THIS MEMORANDUM OF LEASE is prepared for recording and for the purpose of making a public record of said Lease, and it is intended that the parties shall be subject to all of the provisions of the Lease and that nothing herein shall be construed or deemed to alter or change any of the terms or provisions of the Lease.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Landlord has caused this instrument to be executed by its duly authorized representative as of this 12th day of MARCH, 2020.

WITNESS:

LANDLORD:

David R. Anderson

Kathleen M. Anderson

STATE OF MAINE
COUNTY OF Cumberland ss.
March 12, 2020

Personally appeared the above-named David R. Anderson and acknowledged the foregoing instrument to his free act and deed.

Before me,

Notary Public/Attorney-at-Law
Print Name: JUDE A. CLUFF
My Commission Expires: NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES OCTOBER 27, 2020

STATE OF MAINE
COUNTY OF Cumberland ss.
March 12, 2020

Personally appeared the above-named Kathleen M. Anderson and acknowledged the foregoing instrument to her free act and deed.

Before me,

Notary Public/Attorney-at-Law
Print Name: JUDE A. CLUFF
My Commission Expires: NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES OCTOBER 27, 2020

WITNESS:

_____

TENANT:

TOPSHAM MEADOW SOLAR STATION LLC

By: Glenvale LLC

a Massachusetts limited liability company,

its Sole Member

By: _____

James Aidan Foley
Manager

Date: 2/26/2020

STATE OF MASSACHUSETTS
COUNTY OF SUFFOLK, ss.

On the 26 day of FEBRUARY, 2020, personally appeared the above-named James Aidan Foley, Manager of Glenvale LLC, acknowledged the foregoing instrument to his free act and deed in said capacity and the free act and deed of said limited liability company.

Before me,

_____

Notary Public
Print Name: IOAN ALEXANDRU COZMA

My Commission Expires: 05/08/2026

IOAN ALEXANDRU COZMA
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 8, 2026

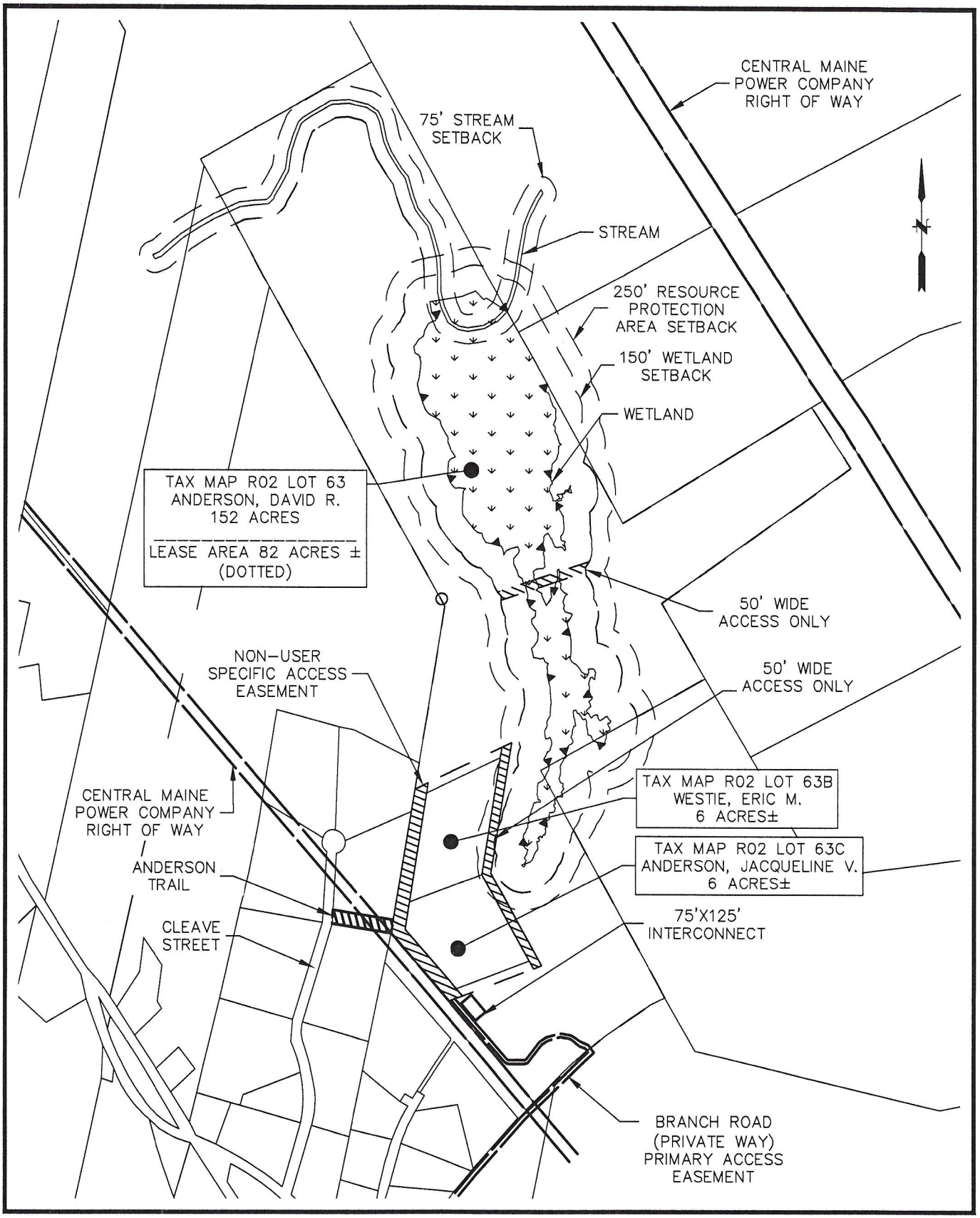
EXHIBIT A

Legal Description of Land

Assessor's tax parcel R02-063, measuring 152.8 +/- acres of land located off of Cleave Street in the Town of Topsham, Sagadahoc County, Maine, and as more clearly depicted in Warranty Deed dated August 19, 1999 recorded at the Sagadahoc County Registry of Deeds at Book 1727, Page 206 and on the Plan dated February 4, 2014 recorded at said Registry at Plan Book 49, Page 75.

EXHIBIT B

Leased Premises



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HORZ.: 1" = 750"	
VERT.: N/A	
DATUM:	
HORZ.: NAD83	
VERT.: NAVD88	
0 375 750	
GRAPHIC SCALE	

FUSS & O'NEILL
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04303
207.363.0669
www.fando.com

GLENVALE , LLC & TOPSHAM MEADOW SOLAR STATION, LLC

LEASE AREA EXHIBIT

TAX MAP R02 LOT 63
68 BRANCH ROAD
TOPSHAM MAINE

PROJ. No.: 20190588.C10	
DATE: 02/06/2020	

LEASE EXB

NOTES:

1. THIS EXHIBIT HAS BEEN PREPARED TO SHOW THE POTENTIAL LOCATION OF TEMPORARY CONTRACTOR PARKING, CONSTRUCTION TRAILER, AND A LAYDOWN AREA THAT WOULD BE USED DURING CONSTRUCTION. THE FINAL LOCATION OF SUCH AREAS WILL BE FINALIZED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

2. ANY AREAS USED FOR TEMPORARY CONSTRUCTION PARKING OR LAYDOWN MUST BE STABILIZED AND REVEGETATED PER THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

3. THE TOTAL AREA OF THE TEMPORARY PARKING AND LAYDOWN AREA SHOWN IS APPROXIMATELY 1.54 ACRES.

SILT FENCE

TEMPORARY LAYDOWN AREA
31,500 SF

12 PARKING SPACES

28 PARKING SPACES

10'x25'
CONSTRUCTION
TRAILER

30'

20'

SF

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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1.	3/18/2021	MEDEP PRE-APPLICATION	JVA	RRL

SCALE:
HORZ.: 1" = 20'
VERT.: N/A
DATUM:
HORZ.: NAD83
VERT.: NGVD88
20 10 0 20
GRAPHIC SCALE

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TOPSHAM MEADOW
SOLAR STATION
TEMPORARY LAYDOWN AND
PARKING EXHIBIT
TAX MAP R02 LOTS 63, 72 & 93
TOPSHAM MAINE

PROJ. No.: 20190588.C10
DATE: 01/06/2021

EXB-01

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