



July 21, 2021

Mr. Tom Kravitz, Town Planner
Planning Department
North Smithfield Town Hall
One Main Street, PO Box 248
Slatersville, RI 02876

Re: Pre-Application – Proposed Pomham Solar 3± MW Solar Array
Off Iron Mine Hill Road
Assessor's Plat 16 Lot 19
ESS Project No. P322-001

Dear Mr. Kravitz,

ESS respectfully submits the enclosed pre-application package on behalf of the developer and property owner, Islander Solar, LLC., and the property owner of the leased access road, Joel Authier. The applicant proposes to develop a 3± MW ground mounted solar photovoltaic system on a vacant lot. This project was first presented to the Planning Board at a pre-application meeting held on August 1, 2019. Due to the long delay, the applicant requests a new pre-application meeting prior to advancing the project. Please find enclosed:

1. \$200 Filing Fee
2. Application for Subdivision and Land Development Projects
3. Pre-Application Checklist
4. Soils Map- Ten (10) copies;
5. Pre-Application Plan Set - Ten (10) full size copies;

A brief narrative of the existing conditions and proposed project is provided below.

Existing Conditions

The 22.24± acre property is located off Iron Mine Hill Road. The Site is identified as Assessor's Plat 16, Lot 19 and is zoned Rural Agricultural (RA). It consists of vacant wooded land classified as Residential Vacant according to the latest property record card. The surrounding properties are primarily wooded with the exception of single family residences along Iron Mine Hill Road. The closest residence is located to the north on Assessor's Plat 16, Lot 18, through which the project will be accessed. All other residences are several hundred feet from the proposed array.

Based on readily available GIS data, jurisdictional resource areas include wetlands to the west and south of the Site and an unnamed stream to the west of the Site. The property is located within flood zone "X" per FIRM Map 44007C0160G. Flood zone "X" refers to areas of minimal flood hazard above the 500-year flood level. The Site is mapped by Natural Resources Conservation Service (NRCS) as Canton and Charlton fine sandy loams. It does not contain soils that are classified as Prime Farmland. Refer to the enclosed soils maps.

No historic districts, historic cemeteries, state designated Greenway Corridors, Natural Heritage Areas, state designated scenic areas, hiking/biking trails, boat launches, lake/stream access points, beach/water trails, or play fields/grounds have been identified on or immediately adjacent to the Site. The Site is not located within



a Community or Non-Community Wellhead Protection Area or Groundwater Aquifer Overlay District per "Map 1 and Map 2- North Smithfield, RI Water Supply Protection Overlay District". It is located within a Surface Water Protection Area per the previously referenced Maps.

Conceptual Project

The applicant proposes to construct a 3± MW DC, 6.8± acre, Ground-Mounted Solar Photovoltaic System within a 11.5± acre fenced area of the Site. The project will include construction of the photovoltaic system as well as associated security fencing, utility poles, access driveway, and stormwater management features. An existing easement option will permit access to the system from Iron Mine Hill Road via an existing driveway on Lot 18 to the north.

The project is allowed by Section 5.7- Solar Photovoltaic System Installations of the Town of North Smithfield Zoning Ordinance. The conceptual layout has been designed in accordance with the Solar Ordinance as listed below:

1. *No solar photovoltaic systems may be constructed or substantially modified without first obtaining a Special-Use Permit.*

The Property Owner is seeking a Special Use Permit;

2. *The parcel in question must be a minimum of six (6) acres in size and must be vacant. Furthermore, the proposed solar array must not exceed thirty percent (30%) of the gross lot area, or exceed 6 acres, whichever is less.*

The 22± acre parcel is greater than the 6 acre minimum and is vacant. The applicant intends to request a variance for the system size. The conceptual 11.5± acre fenced area covers approximately 51% of the parcel. It should be noted that the fenced area is significantly larger than the array area due to site constraints and anticipated stormwater management features. The 6.8± acre array area covers 30.4% of the lot.

3. *Consistent with Section 5.7.5 (g) Visual Buffer and Setback, all solar arrays must be set back a minimum of 100 feet from the property line. Within the 100-foot minimum setback a permanent all season green buffer shall be planted.*

The solar array will be located a minimum of 100-feet from the property line. A 50-foot buffer of existing vegetation is proposed. Additional plantings are not proposed due to the relatively remote location and unique topography of the Site.

4. *Water Bodies and Wetlands: Setbacks must comply with state environmental regulations.*
5. Wetlands have been delineated and surveyed. All proposed work is located outside the applicable 50-ft perimeter wetland.
6. *No Installation or operation of a solar photovoltaic system shall result in any form of trespass at any time.*

- a. *Solar Reflection*

b. Noise Generation

c. Neighboring Properties

The proposed solar array is not anticipated to cause adverse impacts associated with solar reflection, noise generation, neighboring properties, or local wildlife. According to "Clean Energy Results; Questions & Answers; Ground-Mounted Solar Photovoltaic Systems" published by the Massachusetts Department of Energy Resources, Massachusetts Department of Environmental Protection, and Massachusetts Clean Energy Center in June 2015:

- "Solar panels are designed to absorb solar energy and convert it into electricity. Most are designed with anti-reflective glass front surfaces to capture and retain as much of the solar spectrum as possible. Solar module glass has less reflectivity than water or window glass. Typical panels are designed to reflect only about 2 percent of incoming sunlight. Reflected light from solar panels will have a significantly lower intensity than glare from direct sunlight."
- "Ground-mounted solar PV array inverters and transformers make a humming noise during daytime, when the array generates electricity. At 50 to 150 feet from the boundary of the arrays, any sound from the inverters is inaudible."

7. Wildlife, fauna access and migratory patterns to remain unaffected.

The Site is not located within a Natural Heritage Area, therefore, no impacts to protected species are anticipated. The bottom of the fence will be raised 6 inches above ground to permit the passage of small wildlife beneath the fence.

8. A security fence shall be installed and maintained surrounding all components of the solar photovoltaic system. The fence shall be no less than six feet and no more than ten feet tall. The fence shall be inside the visual buffer and setback.

A 7-foot tall chain link security fence is proposed surrounding all components of the solar photovoltaic system. The fence will be screened by the proposed 50-foot all buffer.

9. Clearly visible warning signs concerning voltage shall be placed along the security fence. The signs shall identify the owner and have a 24-hour phone contact for emergencies.

Danger signs and Emergency Contact signs will be installed along the proposed chain link fence;

10. The maximum height of any component or appurtenance structure of the ground-mounted solar photovoltaic system shall be 15 feet.

The maximum height of all components of the ground-mounted solar photovoltaic system will not exceed 15-feet, excluding utility poles.

11. Utility connections for the solar photovoltaic system shall be installed underground on the subject property. Electrical transformers for utility interconnections may be above ground if required by the utility provider. All electrical components of the solar photovoltaic system shall conform to all relevant and applicable local, state and national codes, laws and regulations.

Utilities connections within the solar array will be underground up to the first utility pole, which will be located outside the solar array. All electrical components of the solar array will conform to the relevant and applicable local, state, and national codes.

12. *Appurtenant structures, such as equipment shelters, transformers, and substations shall be within the security fencing. All appurtenant structures shall be shielded from view by the green buffer. Storage buildings shall not be permitted on the solar photovoltaic system site.*

The equipment pad will be located within the proposed chain link security fence. The fence will be screened by the proposed 50-foot buffer.

13. *In addition to any requirements of Section 17, to the maximum extent practicable, all ground mounted solar voltaic installations should be located to preserve the natural features of the site, to avoid areas of environmental sensitivity, and to minimize alterations of and negative impacts to natural features, historic and cultural resources, and scenic areas. Any grading or site preparation must, to the extent possible, conform to the natural topography of the area. Excavation of material including gravel, sand and rock is prohibited unless it is necessary to properly locate the solar photovoltaic installation, and such excavation shall only be that which is minimally necessary. The applicant shall conduct and pay for a site analysis conducted prior to the conceptual site planning process.*

The ground mounted solar array will be located outside of jurisdictional wetlands and rivers, including their respective buffers. In addition, the Site does not contain any historic or cultural resource or scenic areas per readily available Rhode Island Geographic Information (RIGIS) data. Proposed site work will be limited to the minimum necessary to install the array. The conceptual array layout avoids existing steep topography, ledge, and large areas of boulders.

14. *Solar photovoltaic systems shall be maintained in good condition. Such maintenance shall include painting, structural repairs, integrity of security measures, and maintenance of green buffer and maintenance of drainage and runoff systems. Solar photovoltaic systems shall be inspected for structural integrity, security measures and maintenance of drainage and runoff systems by an Engineer at least once each year. The inspection report shall be submitted annually to the Building/Zoning Office on the anniversary of the issuance of the building permit.*

An Operations and Maintenance (O&M) Plan will be developed and submitted during a subsequent review stage. The O&M plan will address the specific maintenance and inspection criteria detailed above.

15. *On-site Inspections and Construction Control*

On-Site inspections and confirmation of completion record will be conducted and maintained throughout all phases of the construction.

16. *The Applicant shall maintain a current general liability policy during the construction phase of the Solar photovoltaic system that covers bodily injury and property damage with minimum limits of Two Million Dollars (\$2,000,000.00) per incident/per occurrence. The Applicant shall provide the Zoning Board of Review with a valid certificate of insurance listing the Town of North Smithfield as additionally insured.*



Mr. Tom Kravitz
July 21, 2021

Liability insurance, with the minimum limits listed above, will be purchased during the construction phase of the solar array by the Applicant.

Please feel free to call me at 781-419-7726 or email me at JGold@essgroup.com with any questions or comments.

Sincerely,
ESS GROUP, INC.

A handwritten signature in black ink that reads "Jason Gold".

Jason M. Gold, P.E.
Manager, Civil/Site Engineering

Enc.

CC: James Caling, Islander Solar, LLC



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TOWN of NORTH SMITHFIELD
PLANNING DEPARTMENT

One Main Street
Slatersville, RI 02876
Phone: 767-2200 Fax: 766-0016

APPENDIX B: APPLICATION FOR SUBDIVISION AND LAND DEVELOPMENT PROJECTS

The undersigned owner of land hereby requests to be placed on the agenda of the North Smithfield Planning Board and state that the required information detailed in the Subdivision Regulations of the Town of North Smithfield have been presented to the Administrative Officer.

Courtney Matsuishi, General Counsel _____ of _____ Islander Solar, LLC
is hereby designated as the person to whom legal process may be served in condition with any proceedings arising out of this application. I/We also certify that the undersigned is the owner of the property designed below:

Name of Project: Pomham Solar **Date:** _____

Classification

- ☐ Minor
☒ Major

Type of Project

- ☐ Administrative
☐ Subdivision
☒ Land Development Project

Review Stage

- ☒ Pre-Application/Concept
☐ Master Plan
☐ Preliminary Plan
☐ Final Plan

1. Assessor's Plat(s) 16 Assessor's Lot(s) 19
2. Number of Lots: 1 3. Zoning Designation(s): RA
4. Street Name: Off Iron Mine Hill Road
5. Divider/ Developer: Islander Solar, LLC
6. Divider's/ Developer's Name: Scott K. Risley
(Please Print)

Divider's/ Developer's Name: Scott Risley
(Signature)

7. Names, addresses, and signatures of all persons with 10% or more interest:

Jeffrey Cheng Jeffrey Cheng, Authorized Signatory
(Signature) for Nautilus Solar, LLC
(Please Print)

(Signature)

(Please Print)

8. Surveyor/ **Engineer/** Attorney/ Representative: ESS Group, Inc.

Name: Jason Gold, P.E.

Address: 404 Wyman St, Suite 375, Waltham, MA 02451

Daytime Telephone # 781-419-7726 Facsimile # _____

(The owner hereby grants permission to Planning Board members and other Town officials to enter the designated property for the purpose of inspection after notifying the owner 48 hours in advance of site visit.)

Pomham Land Development Application

Final Audit Report

2021-07-14

Created:	2021-07-14
By:	Scott Risley (srisley@nautilussolar.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAfVS6mItUkrqr5HoEFLdpXkEwE54U-c

"Pomham Land Development Application" History

-  Document created by Scott Risley (srisley@nautilussolar.com)
2021-07-14 - 1:44:12 AM GMT - IP address: 98.35.251.33
-  Document emailed to Jeffrey Cheng (jeff@nautilussolar.com) for signature
2021-07-14 - 1:44:28 AM GMT
-  Email viewed by Jeffrey Cheng (jeff@nautilussolar.com)
2021-07-14 - 1:44:55 AM GMT - IP address: 172.56.35.136
-  Document e-signed by Jeffrey Cheng (jeff@nautilussolar.com)
Signature Date: 2021-07-14 - 1:45:16 AM GMT - Time Source: server- IP address: 172.56.35.136
-  Agreement completed.
2021-07-14 - 1:45:16 AM GMT

C. CHECKLIST FOR PRE-APPLICATION MEETINGS

MAJOR LAND DEVELOPMENT PROJECTS AND MAJOR SUBDIVISIONS

CONSERVATION DEVELOPMENTS

The submission materials for the Pre-Application Meeting consist of the following maps, at a minimum, which correspond to Steps 1-3 of the Conservation Development design process in Section 4-1 (D). The applicant shall submit to the Administrative Officer at least ten (10) blue line or photocopies of pre-application maps required below. The scale of all plans shall be as indicated below and shall be sufficient to clearly show all of the information required. The scale and number of plans may be modified with the permission of Administrative Officer. Plans shall include a certification that all plans and improvements conform to a minimum Class IV standard of the State of Rhode Island and Providence Plantations, Board of Registration for Professional Engineers and Board of Registration of Land Surveyors. All plan sheets and related documents must be provided in portable document format (PDF) files as well.

Every submission must also be accompanied by an Application for Approval of a Major Land Development Project or Major Subdivision, as contained in Appendix B.

Required information includes the following:

1. Site Base Map (see below).
2. Existing Resources and Site Analysis Map. See Section 4-1 (O).
3. Site Context Map. See Section 4-1 (F).
4. Sketch Plan Overlay Sheet. See Section 4-1 (E).
5. Conventional Yield Plan. See Section 4-1 (H).*
- *Required for Conservation Developments only
6. Proposed Conditions Map (Conventional Subdivisions only).

BASE MAP

The base map shows the principal existing features of the site, including parcel boundaries, roads, structures, water bodies and vegetation. It should be drawn at a scale sufficient to clearly show all of the information required. At a minimum, the following information shall be provided:

1. X Name and location of the proposed subdivision.
2. X Name and address of property owner and applicant.
3. X Name, address and telephone number of the person or firm preparing the pre-application plan(s).
4. X Date of plan preparation, with revision date(s) (if any).
5. X Graphic scale and true north arrow. Legend to explain any graphic representations or symbols on the plan.
6. X Inset locus map at 1"=2000' exact or approximate scale so labeled.
7. X Plat and lot number(s) of the land being subdivided.
8. X Zoning district(s) of the land being subdivided. If more than one district, zoning boundary lines shall be shown.
9. X Perimeter boundary lines of the subdivision, in heavy shaded line, drawn so as to distinguish them from other property lines.
10. X Location, width, and names of existing streets within and immediately adjacent to the subdivision parcel.

11. X Location and dimensions of existing property lines, easements, and rights-of-way within and immediately adjacent to the subdivision parcel.
12. X Area of the subdivision parcel in square feet.
13. X Names of abutting property owners and property owners immediately across any adjacent streets.

EXISTING RESOURCES AND SITE ANALYSIS MAPS

The information required in Section 4-1(O) shall be shown on the Existing Resources and Site Analysis Map(s), and shall be subject to the approval of the Administrative Officer. This information includes the following:

A. Topography and Slopes

15. X Existing topography of two or five foot elevation relative to sea level.
16. X Slope map, with slopes grouped according to three categories based on development suitability: <15%, 15-25%, and over 25%. Steeper slopes should be shown in progressively darker colors or shades of gray.

B. Natural Resources Inventory

17. X Location of land unsuitable for development as defined in the Zoning Ordinance, including wetlands, ponds, streams, ditches, drains, special aquatic sites, vernal pools. Wetland locations do not need to be verified by RIDEM.
18. X Vegetative cover on the property, indicating any unfragmented forest tracts
19. X Soils map, indicating any prime farmland soils, and any land in active agricultural use.
20. N/A Geologic formations
21. X Ridge lines of existing hills
22. X Wellhead protection areas for public or community drinking water wells
23. X Groundwater Aquifer Overlay District (Town)
24. X 100-year floodplains as shown on federal flood protection maps
25. X State, regional, or community greenways and greenspace priorities
26. X State-designed Natural Heritage Sites (RIDEM)

C. Cultural Resource Inventory

27. X Approximate location of man-made features such as roads, structures, outbuildings, roads or trails, and other such features on the parcel
28. X Historically significant sites or structures
29. X State or locally-designated historic sites, districts, cemeteries or landscapes
30. X Location of any stone walls within or forming the perimeter of the site
31. N/A Archaeological sites
32. X Scenic road corridors and state-designated scenic areas
33. N/A Viewshed analysis

D. Recreational Resource Inventory

34. NA Existing hiking, biking and bridle trails within and adjacent to site
35. NA Boat launches, lake and stream access points, beaches and water trails
36. NA Existing play fields and playgrounds on or adjacent to the site

E. Utilities and Infrastructure

- 37. NA Size and approximate location of public or private water lines
- 38. NA Size and approximate location of public or private sewer lines
- 39. NA Gas service
- 40. X Electrical service
- 41. X Telephone, cable, and other communication services
- 42. X Width and surfacing material of existing road(s) at access points
- 43. NA Existing drainage and drainage structures, such as culverts and pipes, etc.

SITE CONTEXT MAP

The Contextual Analysis process is described in detail in Section 4-1 (F) and in the design process Section 4-1 (D), Step 2 of these Regulations. It can include many of the same features and resources mapped for the site analysis, but this time with a focus on the area surrounding the site. A separate soils map of the surrounding area shall be prepared. If present, agricultural land as defined in Article II, and any very poorly drained soils shall also be shown on the Site Context Map.

- 44. X Site Context Map
- 45. X A copy of the soils map of the subdivision parcel and surrounding area, and general analysis of soil types and suitability for the development proposed. If any prime agricultural soils are within the subdivision parcel(s), the soils map shall be marked to show the location of said prime agricultural soils.

SKETCH PLAN OVERLAY SHEET (Conservation Developments)

For Conservation Developments, the applicant shall present initial proposals for development, using a conceptual sketch plan(s) for development. The sketch plan(s) may be presented as overlay sheets to be superimposed on the top of the base map and existing resources and site analysis maps required above (at the same scale). As an alternative, separate diagrammatic sketch plan(s) may be presented. Refer to Section 4-1 E. At a minimum, the sketch plan(s) shall show the following:

- 46. N/A Identification of areas proposed for development
- 47. N/A Location of proposed open space areas (if applicable)
- 48. N/A Initial layout of streets
- 49. N/A Land Unsuitable for Development, as defined in the Zoning Ordinance
- 50. N/A Schematic drainage plan

CONVENTIONAL YIELD PLAN (Conservation Developments)

A Conventional Yield Plan, as discussed in Section 4-1(H) shall be drawn to scale to show the maximum number of single family lots that could be developed on a subdivision parcel, taking into consideration the presence of land unsuitable for development as defined in Section 5.5.3 of the Zoning Ordinance.

- 51. N/A Conventional Yield Plan

CONVENTIONAL SUBDIVISIONS

If a conventional subdivision is proposed, the applicant shall not be required to submit a Sketch Plan Overlay Sheet or a Conventional Yield Plan as required above for conservation developments. In lieu of these two requirements, the following information shall be required:

52. ☒ Proposed improvements, including streets, lots, lot lines, with approximate lot areas and dimensions. Proposed lot lines shall be drawn so as to distinguish them from existing lot lines. Approximate lot areas shall indicate total lot area and lot area exclusive of land unsuitable for development.

53. ☒ Schematic drainage plan

SUPPLEMENTARY INFORMATION

1. ☒ Administrative (filing) Fee. See Section 9-10

2. ☐ N/A If a conservation development is proposed, plans shall be submitted on the Sketch Plan Overlay Sheet:

☐ Conventional Plan

☐ Conservation Development Plan

CONCLUSIONS/OUTCOMES FROM PRE-APPLICATION REVIEW

☐ Agreement on areas for further investigation, necessary detail of field surveys, etc.

☐ Approximate location of natural, cultural and recreational resources and agreement on the Town's priorities for resource protection in the areas of the site

☐ Understanding of resource systems within the site's larger context

☐ Preliminary location of potential conservation and open space areas

☐ Preliminary location potential development areas

☐ Agreement on type of development (conservation development or conventional development)

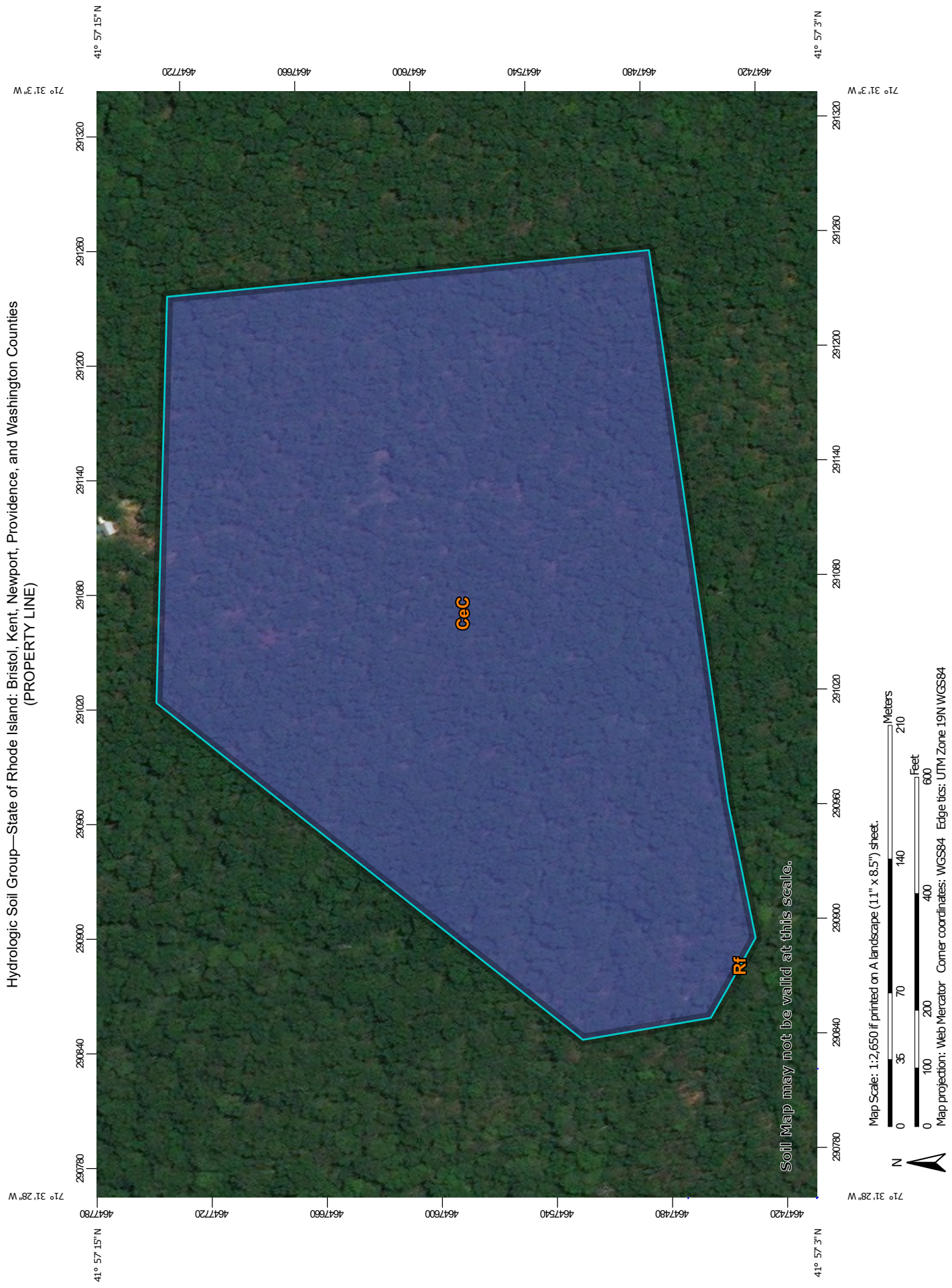
☐ Agreement on initial basic maximum number of units. Refer to Section 4-1 (H).

☐ Determination of the requirement for a project review fee. Refer to Section 9-11- Project Review Fees

☐ If a project review fee is required, agreement regarding the consultants, if any, the Town will use to assist in the review process.

☐ Other

Hydrologic Soil Group—State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties
(PROPERTY LINE)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey