



July 9, 2023

VIA ELECTRONIC DELIVERY

Attorney Melanie Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Petitioner #1627 -- LSE Libra LLC ("Lodestar") for a Declaratory Ruling that No Certificate of Environmental Compatibility and Public Need is Required for the Construction, Operation and Maintenance of Solar Photovoltaic Facility in Hamden, Connecticut

Dear Attorney Bachman:

In connection with the above-captioned petition, please find the original and fifteen (15) copies of petitioner LSE Libra LLC's interrogatory responses to interrogatories issued by the Council on June 18, 2024. Please contact me directly if you have any questions.

Sincerely,

Carrie L. Ortolano

Carrie L. Ortolano
General Counsel

Enclosures

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

**LSE Libra LLC (Lodestar Energy)
petition for a declaratory ruling, pursuant
to Connecticut General Statutes §4-176
and §16-50k, for the proposed
construction, maintenance and operation
of a 1.5-megawatt solar photovoltaic
electric generating facility located at 410
Denslow Hill Road in Hamden,
Connecticut, and associated electrical
interconnection.**

PETITION NO. 1627

July 9, 2024

PETITIONERS' RESPONSES TO COUNCIL'S INTERROGATORIES

Notice

1. Has Lodestar received any comments since the petition was submitted to the Council? If yes, summarize the comments and how these comments were addressed.

RESPONSE: Lodestar has not received any additional comments.

2. Referencing Petition p. 9, what were the Town's concerns regarding the site layout?

RESPONSE: The Town's main concern was tree removal. As demonstrated in Exhibit 8 of Petitioner's petition, the net positive carbon impact of the tree removal will occur in a matter of days. The carbon offset generated by the Project will have the equivalent carbon sequestration value of forest land 182 times the size of the trees to be removed at the Site.

Project Development

3. If the project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s)?

RESPONSE: In addition to the Council's approval of this Petition, the Project will require a stormwater General Permit (GP 15) from the Department of Energy and Environmental Protection ("DEEP") along with both building and electrical permits from the Town of Hamden. Petitioners will hold all of the required permits.

4. What is the estimated cost of the project?

RESPONSE: The estimated cost of the project is \$2.55 million.

5. Is the project, or any portion of the project, proposed to be undertaken by state departments, institutions or agencies, or to be funded in whole or in part by the state through any contract or grant?

RESPONSE: This project is part of the Non-Residential Solar Renewable Energy Solutions (NRES) program which is a statewide program. The Non-Residential Solar Renewable Energy Solutions (NRES) program is a successor program to the Low Emission Renewable Energy Credit and Zero Emission Renewable Energy Credit (LREC/ZREC) and Virtual Net Metering (VNM) programs with the objectives to foster the sustained, orderly development of the state's Class I renewable energy industry and to encourage the participation by customers in underserved and environmental justice communities, among others. The statewide NRES Program seeks the deployment of new or incremental Class I renewable generation projects for a 20-year term. Eligible projects are chosen through a competitive bidding procurement process each year, for a total of 6 years. The first procurement occurred in 2022 and this project participated and won an auction in Year 2 of the program.

6. Referencing Petition p. 4, identify the location of any alternate sites that were considered for solar development and the reasons they were rejected. When submitting a project to the Non-Residential Renewable Energy Solutions (NRES) Program, are alternative sites for a certain bid required or allowed?

RESPONSE: The petitioner considered Eversource interconnection substation capacity, circuit capacity, and proximity to Eversource lines. Parcel size, accommodation of the project size, wetland impacts, slope, buildability, environmental impacts, and availability of land were also considered. As a result, this was the only parcel in the Town of Hamden that met all of these stated criteria. Alternative sites for a certain NRES bid are not allowed.

7. Referencing to Petition p. 3, when was the project awarded a NRES Tariff Agreement?

RESPONSE: The Project was awarded a NRES Tariff Agreement during the second year of NRES. The Tariff Agreement was approved on July 19, 2023.

8. Referencing to Petition p. 2, would the total capacity of the facility be allocated to the City of West Haven through the NRES Program?

RESPONSE: Yes, the total capacity of the facility will be allocated to the City of West Haven.

9. Referring to Petition p. 10, if the facility operates beyond the terms of the NRES Agreement, will Lodestar decommission the facility or seek other revenue mechanisms for the power produced by the facility?

RESPONSE: Lodestar would likely continue to operate the facility and seek other revenue mechanisms available at that time.

10. If Lodestar transfers the facility to another entity, would Lodestar provide the Council with a written agreement as to the entity responsible for any outstanding conditions of the Declaratory Ruling and quarterly assessment charges under CGS §16-50v(b)(2) that may be associated with this facility, including contact information for the individual acting on behalf of the transferee?

RESPONSE: Yes, Lodestar would require this to the extent required by any approval of this Petition.

Proposed Site

11. Submit a map clearly depicting the boundaries of the solar facility site and the boundaries of the host parcel(s). Under Regulations of Connecticut State Agencies (RCSA) §16-50j-2a(29), "Site" means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located.

RESPONSE: See Exhibit 1 attached.

12. What is the length of the lease agreement with the property owner? Describe options for a lease extension(s), if any.

RESPONSE: The lease term is twenty-five (25) years with two (2) additional five (5) year extensions available for a total of thirty-five (35) years.

13. In the lease agreement with the property owners, are there any provisions related to decommissioning or site restoration at the end of the project's useful life? If so, please describe and/or provide any such provisions.

RESPONSE: Petitioner is required to remove the Facility at the expiration or termination of the lease.

14. Is the site, or any portion of the host parcel(s), part of the Public Act 490 Program? If so, how does the municipal land use code classify the parcel(s)? How would the project affect the use classification?

RESPONSE: No.

15. Is the host parcel subject to any development restrictions?

RESPONSE: No.

Proposed Facility and Associated Equipment

16. What is the length of the access drive?

RESPONSE: The length of the access drive is 500 feet.

17. Are the inverters located on concrete pads or on post-supported racking?

RESPONSE: The inverters are located on post-supported racking.

18. What are the approximate dimensions (LxWxH) of the transformer and switchgear, and the pad-mounted interconnection equipment?

RESPONSE: The dimensions are as follows:

- a. Transformer = 86”L x 72” W x 75” H
- b. Pad-mount equipment / switchgear (same unit) = 99”L x 77”W x 63”H

19. What is the approximate installation depth of the racking posts?

RESPONSE: The depth of the racking posts is 10 feet.

20. Referencing Petition p. 18, is the wiring from the panels to the inverters installed on the racking system? If wiring is external, how would it be protected from potential damage from weather exposure, vegetation maintenance, or animals?

RESPONSE: Wiring from the modules is mounted to the racking system with stainless steel wiring clips and / or ties designed specifically for use in photovoltaic wire management. When transitioning out of the racking system, protective wire loom is used to prevent abrasion damage from moving parts. Wiring is then routed through site utilizing either underground conduit or above ground wire messenger systems approximately 3’ above grade, under the racking and above the limits of vegetation maintenance. In all cases, wire is protected against physical damage per National Electric Code requirements and is insulated with jacketing appropriately rated for direct sun / weather exposure.

21. What is the distance from the proposed perimeter fence to the nearest residential building?

RESPONSE: It is approximately 131 feet from the perimeter fence to the house at 80 Brook Hill Road.

Energy Output

22. Is the project being designed to accommodate a potential future battery storage system? If so, please indicate the anticipated size of the system, where it may be located on the site, and the impact it may have on any contract(s).

RESPONSE: There is no current plan for battery installation because such technology is not part of the existing state regulatory regime. In the event that the regulatory environment changes, Petitioner may later seek to install batteries at the Project and, if so, sizing and location would be determined at that time and Petitioner would then seek the required regulatory approvals to do so, including any approvals required by the Siting Council.

23. If one section of the solar array experiences electrical problems causing the section to shut down, could other sections of the system still operate and transmit power to the grid? By what mechanism are sections electrically isolated from each other?

RESPONSE: Within each array, modules are grouped together in “strings” of approximately 27 modules, each of which have dedicated electrical protection and disconnecting ability. In addition, each inverter also has dedicated electrical protection and disconnecting ability.

24. Would Lodestar participate in an ISO-NE Forward Capacity Auction? If yes, which auction(s) and capacity commitment period(s)?

RESPONSE: No, this is not allowed under NRES program rules.

25. What is the anticipated capacity factor of the project? Identify what electrical loss assumptions have been factored into the output of the facility, if any.

RESPONSE: The capacity factor of the system is 81.11%. PV Solar panels degrade at a fixed rate of 0.3% to 0.5% per year. This means that after 20 years, the system will be producing at approximately 90% of its initial capacity.

26. Would Lodestar construct the facility if the solar array area was reduced and/or if the facility design features (ex. row spacing, panel height, etc.) were modified? Explain.

RESPONSE: Lodestar performs a detailed engineering analysis of its project sites, taking row spacing, panel height, land topology, and other factors into account to ensure both optimum performance and safe, reliable operation. Modifying the facility design features could negatively affect both project economics and operation to the point of no longer being a viable endeavor.

Electrical Interconnection

27. Does the interconnection require a review from ISO-NE?

RESPONSE: No.

28. Besides the interconnection poles to be owned by United Illuminating, describe any other off-site distribution system upgrades necessary to facilitate the project interconnection, if applicable.

RESPONSE: No additional distribution system upgrades are necessary outside of the interconnection poles.

29. Will the interconnection provide energy to a substation? If yes, which one?

RESPONSE: The project will export power directly to the adjacent, existing United Illuminating distribution circuit (feeder 1692) which interconnects to the existing United Illuminating Mix Avenue substation.

30. What is the approximate height above grade of the proposed utility poles?

RESPONSE: The utility poles are provided by and installed by United Illuminating and any change in the number of poles or design thereof would require approval by United Illuminating. The average height above grade for the utility poles being installed is 30-40 feet. United Illuminating does not typically allow consolidation of their equipment.

31. Provide the line voltage of the existing distribution system at the point of electrical interconnection.

RESPONSE: The existing voltage is 13.2kV.

32. Referencing Petition Site Plan - Sheet 4, what is the distance between the utility poles at the interconnection location? Can the distance between the poles be increased to avoid clustering of the poles at the access drive entrance area?

RESPONSE: Spacing shown on the plan set for utility-owned poles is 35' which is already greater than the standard 25' requested by the utility. The customer poles have been replaced with a pad-mounted switchgear and meter to reduce visual impact.

Public Health and Safety

33. Would the project comply with the current Connecticut State Building Code, National Electrical Code and Connecticut State Fire Prevention Code?

RESPONSE: Yes. The Project will comply with all applicable standards.

34. What are industry Best Management Practices for Electric and Magnetic Fields at solar facilities? Would the site design conform to these practices?

RESPONSE: Potential risks from the electric and magnetic fields at the solar facility are no different than the risks from common utility distribution lines and household electrical services. Industry best practice for electrical system safety is described within the National Electric Code which is adhered to in all parts of the system design and construction. Typical safety measures include the installation of a grounding ring in equipment areas and proper bonding of all metallic or otherwise conductive equipment and racking to mitigate step and touch shock hazards. Protective relaying, fusing, and circuit breakers are incorporated into the design to ensure the prompt interruption of electrical faults.

35. Would notice to the Federal Aviation Administration be necessary for the temporary use of a crane during construction? If a crane is used, what would be the crane height needed to install site equipment?

RESPONSE: There is no plan to be utilizing a crane during construction. Any construction activities will comply with all regulatory requirements, including but not limited to FAA requirements.

36. Would training be provided for local emergency responders regarding site operation and safety in the event of a fire or other emergency at the site?

RESPONSE: Yes, this will be provided.

37. Provide an Emergency Response Plan for the proposed facility.

RESPONSE: Petitioners' emergency response plan is included in Exhibit 3 of the original petition.

38. In the event of a brush or electrical fire, how are potential electric hazards that could be encountered by emergency response personnel mitigated? What type of media and/or specialized equipment would be necessary to extinguish a solar panel/electrical component fire?

RESPONSE: Petitioner cannot provide responses to how the local fire department would respond to a fire at the Site. The Project includes a gang-operated air break switch (GOAB) that permits emergency responders to safely de-energize the entire Project from the electrical grid and prevent electrical generation at the Site in the event emergency response personnel need to access the Project. Information regarding the GOAB will be provided in the emergency responder training provided by Petitioner prior to energization of the Project. Based on the Petitioner's knowledge, there is no specialized equipment required for fire suppression at a solar project.

39. What is the distance of the nearest municipal fire hydrant to the proposed facility? What alternative water sources are available to the fire department? How would water be brought to the site in the event of a fire?

RESPONSE: There is a fire hydrant located approximately 40 feet south of the proposed access driveway in front of the property at 407 Denslow Hill Road. With the presence of the hydrants, the need for alternative water sources is not anticipated.

40. Would fire control water or other runoff from a solar panel/electrical fire be considered hazardous and require cleanup by a hazardous materials response contractor?

RESPONSE: No.

41. What type of insulating oil is used within the transformers? Is it biodegradable? Do the transformers have a containment system in the event of an insulating oil leak? Can the SCADA system detect an insulating oil leak?

RESPONSE: Envirotemp FR3 natural ester fluid is used within the transformers. It is readily biodegradable per OECD 301, non-toxic and non-hazardous in soil and water, contains no petroleum, halogens, silicones, or sulfurs, and is recyclable. Secondary containment and SCADA leak detection are not typically installed when using FR3 fluid.

42. If private water wells are located on properties abutting the site, would vibrations from the installation of racking posts affect well function and/or water quality, such as well water sedimentation?

RESPONSE: The Regional Water Authority provides public water supply service to the area surrounding the site. It is therefore presumed that abutting properties are not served by private wells. Vibrations from installation of racking systems for the solar panels are not anticipated to cause sediment releases or any other problems to the public water supply. Similarly, and to the extent that any surrounding properties are served by private wells, there will be no impact to those private wells, particularly since no blasting will be

utilized during the construction process. Geotechnical analysis is performed prior to the post-approval, pre-construction engineering design of the foundations and all subsurface conditions are considered in the final design. Should rock or other subsurface conditions exist that may significantly conduct vibrations, pilot hole drilling is typically employed prior to pile driving which greatly reduces drive times and associated noise and vibrations.

43. Can the inverters be located at the end of select panel rows rather than in one central location?

RESPONSE: The current inverter location minimizes alternating current-segment voltage drop and represents an optimized system. Relocating to the array would introduce significant losses and harm the system capacity factor.

44. Can the transformer pad and inverters be located farther to the south, adjacent to the perimeter fence?

RESPONSE: The grades get steeper in this area indicated. The equipment pad cannot be moved south without further regrading resulting in a significant increase in land disturbance.

45. Do the pad and pole-mounted interconnection equipment emit noise? If yes, what is the anticipated collective noise level at the adjacent property lines?

RESPONSE: No - the only noise emanation is from the inverters and transformer on the pad located near the array, which is discussed in the noise analysis submitted in the original petition.

46. Describe the effect of tree clearing on the site in relation to the potential for increased runoff and water flow to Wilmot Brook and its associated flood control dam.

RESPONSE: The change from a wooded canopy to a maintained meadow cover type will have a minor impact on the runoff generated at the site. This is accounted for in the drainage calculations by using a different Curve Number (CN) for the changed condition. As detailed in the Drainage Report, the change in cover type, in addition to the DEEP's requirement to increase the CN value for areas within the fence due to compaction during construction, does result in a minor impact in the peak rate of runoff. However, the increase in runoff is mitigated by the construction of the stormwater management basins. The purpose of the basins is to mete out the collected runoff, resulting in a net decrease in the peak discharge that leaves the site. As a result, the Project is not anticipated to have a noticeable impact on the downstream dam.

47. What measures would be employed to ensure there would be no soil erosion and flooding resulting from construction activities and post-construction development of the site?

RESPONSE: Proposed soil erosion and sediment control measures are detailed on the Site Plans. Temporary measures during construction will include the installation of a sediment barrier along the downgradient edge of disturbance, the installation of an anti-tracking pad at the site entrance, and the installation of woody debris berms along the contours in the steeper sections of the array to act as intermediate sediment barriers and slow and maintain sheet flow. Permanent measures include the permanent seeding to establish a stable vegetative cover and the construction of the stormwater management basins to control the discharge from the site. Other measures include leaving the stumps in place within the shade management area outside of the perimeter fence to reduce soil disturbance and the potential for erosion.

48. Referencing Attachment 3, Section II, submit a copy of the Spill Incident Report Sheet to be included with the Spill Prevention Control Plan. Sam

RESPONSE: See Exhibit 2 attached.

Environmental Effects and Mitigation Measures

49. Referencing Petition Attachment 7, p. 21, has Lodestar conducted the Phase 1B investigation? If yes, submit a copy and any subsequent response by the State Historic Preservation Office (SHPO). Did SHPO request the Phase 1B investigation? APT

RESPONSE: On behalf of Lodestar, Heritage Consultants conducted a Phase 1B investigation; a copy of the Phase 1B report is attached. Also attached is the SHPO's response, dated May 31, 2024, concluding "that no historic properties will be affected by the proposed solar facility and no additional archaeological investigation is warranted." A copy of that letter is attached hereto as Exhibit 3. The results of the Phase 1A report were not submitted separately to the SHPO; Lodestar elected to have the Phase 1B investigation performed based on the results of the Phase 1A investigation. While the SHPO letter references a SHPO request for the Phase 1B investigation to be performed, that appears to be an oversight that perhaps refers to another matter.

50. Would the stonewall within the construction area be reconstructed elsewhere on the site or host parcel?

RESPONSE: No.

51. Is the proposed site within a DEEP designated Cold Water Habitat area? APT

RESPONSE: The proposed site is not within a DEEP Cold Water Habitat. Wilmot Brook, located on the adjacent State of Connecticut property west of the proposed site, is not classified as a cold water stream or supporting drainage basin to a cold water stream.

52. Referencing Petition Attachment 7, p. 15, describe the significance of the different sizes of core forest. What core forest function does the 0.1 acre of core forest at the site provide?

RESPONSE: Core forest size is related to ecological importance and biodiversity, with larger core forest providing greater habitat connectivity, biodiversity and resiliency to a changing climate. Smaller areas of forest, patch forest and edge forest habitats are almost always less ecologically important, containing less biodiversity. The 0.1 acre of core forest at the Site is at the extreme small end of the core forest size scale and as a result would not be considered ecologically important from a core forest standpoint. Such a small core forest would not support habitat for wildlife that cannot tolerate significant disturbance.

53. Referencing Petition Attachment 7, p. 14, would the area cleared area outside of the fence and detention basins be maintained in a shrub state? Would Lodestar control invasive species within this area? How?

RESPONSE: The proposed Shade Management Area will consist of removal of trees (stumps to remain) and will be maintained as a shrub and pollinator friendly meadow area. Native shrubs located within the Shade Management Area will remain and invasive woody shrubs and vines (e.g., Japanese barberry, autumn olive, winged euonymus, multiflora rose, Asiatic bittersweet) will be removed as part of an invasive species control plan. Areas of exposed soil resulting from the tree clearing and removal of invasive woody shrubs and vines will be planted with a native conservation seed mix that contains pollinator friendly species, such as Ernst Conservation Seeds Northeast Solar Pollinator Buffer Mix (ERNMX-610); see attached specification sheet in Exhibit 9. Details of the Shade Management Area invasive treatment plan (see Exhibit 10) and conservation seeding will be incorporated into the project site plans.

54. Referencing Petition Attachment 7, App. B, has there been any further correspondence from the U.S. Fish and Wildlife Service concerning the Northern-long eared bat (NLEB)?

RESPONSE: An assessment of the Project’s impact to NLEB under section 10(a)(1)(B) of the Federal Endangered Species Act was prepared and submitted to the U.S. Fish and Wildlife Service (USFWS) New England Field Office (NEFO) on April 1, 2024, which concluded that the proposed Project would not reasonably result in a take of NLEB considering tree clearing will be restricted to the inactive period for NLEB, November 1 – April 14 and that four bat boxes would be installed. USFWS NEFO responded via email on April 11, 2024 “we do not have any additional concerns for impacts to the species.” Therefore, no further consultation with USFWS is required; a copy of the USFWS email correspondence is attached in Exhibit 5.

55. Are the four proposed bat houses specific to the roosting requirements of NLEB? What type of bat house is proposed (e.g. nursery box, rocket box)? Would the bat houses be designed and installed in locations to reduce overheating? Explain.

RESPONSE: The four proposed bat houses would satisfy the roosting requirements for NLEB as well as other bat species; there are no NLEB-specific bat house design requirements. Two of the bat boxes would be a multi-chamber nursery-style (Bat Conservation and Management’s ColonyLodge or equivalent); the other two would be rocket style bat boxes (Bat Conservation and Management’s Super Rocket Roost or equivalent) to provide a variety of nesting and roosting habitat styles and increase the opportunity for successful bat usage. Use of the two different bat box designs also provides the widest range of habitat types between roost crevices and vertical baffles and interior temperature gradients. Temperature is a critical factor when bats consider a roosting site, as temperatures around 95°F are required and in Connecticut bat houses should be painted in a darker color such as black, green, or brown. Venting within the bat houses and the variety of roosting sites allow for the bats to select the optimal location should certain portions of the bat houses become too cool or too hot.

56. Referencing Petition Attachment 8, Carbon Debt Analysis and the May 7, 2024 correspondence from the Hamden Tree Commission available at the following link: https://portal.ct.gov/-/media/csc/3_petitions-medialibrary/petitions_medialibrary/mediapetitionnos1601-1700/pe1627/municipalcomments/pe1627_hamdentreecommissioncomments_a.pdf, what is the reason the Environmental Protection Agency’s “conversion factor for carbon sequestered in one year by one acre of average U.S. forest,” metric was used in the carbon sequestration calculation rather using Connecticut specific criteria? Is Connecticut specific criteria available? If yes from what source? Recalculate the Carbon Debt Analysis using Connecticut specific criteria, if applicable.

RESPONSE: The Petitioner is not aware of any Connecticut specific criteria. If the Hamden Tree Commission has any resources or calculation methods unique to Connecticut, the Petitioner would be happy to use an alternative method. Regardless of the standard used to measure the carbon impact of the Project, it is indisputable that the Project will have a net carbon benefit within a matter of days of the commencement of operations. The carbon offset generated by the Project will have the equivalent carbon sequestration value of forest land 182 times the size of the trees to be removed at the Site.

57. Referencing Petition Attachment 7, p. 21, is the hillcrest on Dunbar Hill Road west of the site a town-designated scenic viewpoint? What is the expected view of the facility from this area?

RESPONSE: The hillcrest on Dunbar Hill Road west of the site is the location of the Hindinger Farm retail store. The farm appears to be known for views from its location, but is not designated as a scenic viewpoint. Exhibit 6 and Exhibit 7 are viewshed maps depicting predicted visibility within a 1-mile radius of the proposed project. As shown, there is no predicted visibility of the project from the hillcrest; a small area

south of the Hindinger Farm retail store may have views of the utility poles associated with the project interconnect.

58. What is the expected view from the parking area overlook on Paradise Avenue southwest of the site, adjacent to the electric transmission line right-of-way?

RESPONSE: As shown on the viewshed maps in Exhibit 6 and Exhibit 7, seasonal views of the Project, when the leaves are off the trees, may be experienced from the parking area overlook on Paradise Avenue southwest of the site.

59. What is the use of the State of Connecticut Department of Public Works-owned parcels abutting the site to the south and west? Would the proposed facility be visible from these parcels?

RESPONSE: The State of Connecticut parcels are among several parcels owned by the State of Connecticut and used in flood control efforts along Wilmot Brook. Portions of the parcels are used as open space and are accessible for low impact recreational use. In addition, a Connecticut Light & Power Co. (Eversource) utility line extends in an east-west direction immediately south of the site within the State property. As shown on the attached viewshed maps in Exhibit 6 and Exhibit 7, seasonal visibility, when the leaves are off the trees, is anticipated to the west, south and southwest. An area of year-round visibility is predicted within the utility line right-of-way immediately south of the site with an additional area further south within the State parcel; the areas of predicted year-round visibility beyond the site property's boundaries total approximately 2.1 acres.

60. Submit photographic site documentation with notations linked to the site plans or a detailed aerial image that identify locations of site-specific and representative site features. The submission should include photographs of the site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features including, but not necessarily limited to, the following locations as applicable:

For each photo, please indicate the photo viewpoint direction and stake or flag the locations of site-specific and representative site features. Site-specific and representative site features include, but are not limited to, as applicable:

1. wetlands, watercourses and vernal pools;
2. forest/forest edge areas;
3. agricultural soil areas;
4. sloping terrain;
5. proposed stormwater control features;
6. nearest residences;
7. Site access and interior access road(s);
8. utility pads/electrical interconnection(s);
9. clearing limits/property lines;
10. mitigation areas; and
11. any other noteworthy features relative to the Project.

A photolog graphic must accompany the submission, using a site plan or a detailed aerial image, depicting each numbered photograph for reference. For each photo, indicate the photo location number and viewpoint direction, and clearly identify the locations of site-specific and representative site features show (e.g., physical staking/flagging or other means of marking the subject area).

RESPONSE: The requested documentation is attached in Exhibit 8.

Facility Construction

61. Would blasting be required to construct the site? If not, how will racking posts be installed if bedrock is encountered?

RESPONSE: Blasting would not be performed to construct the site. Should bedrock be encountered, pilot holes will be pre-drilled prior to driving posts or ground screws will be utilized in place of driven piles.

62. Provide a range of final slopes within the array area.

RESPONSE: Existing grades within the array will be maintained. Slopes range from 0 to 15%.

63. Did DEEP Stormwater Division recommend a specific construction phasing plan at the February 26, 2024 pre-application meeting, as stated in the DEEP comments dated May 16, 2024. Would Lodestar adhere to this recommended construction phasing plan? If yes, revise the Site Plans to include DEEP's recommended construction phasing. If not, provide specific reasons.

RESPONSE: At the pre-application meeting and in their letter dated May 16, 2024, DEEP recommended the phasing of the project to include clearing, grubbing and seeding on the steeper northern portion of the site as a first phase, with adequate time for stabilization, before moving to the southern portion of the site. The proposed plans do not require this phased approach because it has been determined that the northern and southern portions of the site are hydrologically separated. The northern portion of the site slopes from east to west, while the southern portion of the site slopes to the south. As a result, the clearing and grubbing in the northern portion of the site will not have a significant impact on the runoff and potential for erosion and sedimentation to the southern portion of the site, and visa-versa. Based on the different flow directions, we do not believe it is necessary to clear and grub the two areas separately.

64. Are panel drip line gravel strips proposed to reduce the potential for erosion on sloping terrain? Explain.

RESPONSE: Drip line gravel strips are not proposed at this time. However, in accordance with DEEP's recommendations, the panel drip lines will be monitored during construction, and additional erosion control measures implemented should they be deemed necessary. Routine inspections to view and ensure adequate implementation of erosion and sediment control measures will be conducted in accordance with the DEEP Stormwater General Permit.

65. Referring to Petition p. 13, what is the status of Lodestar's Stormwater Permit application?

RESPONSE: The Stormwater Permit application has been submitted to DEEP and is under review.

66. How is the loss of groundwater absorption from tree clearing activities accounted for in the DEEP Stormwater Permit when designing the stormwater management system?

RESPONSE: As discussed in the answer to Interrogatory #46, the impact of tree clearing is accounted for in the calculations used to design the stormwater management system by adjusting the Curve Number associated with the cover type.

67. Referencing Petition Site Plan - Sheet 4, what is the reason the outflow pipe from Stormwater Management Basin 2 contains an angle before it reaches the level spreader? Would an angled outflow pipe system be more susceptible to blockage from debris/material?

RESPONSE: The angle is necessary so that the pipe comes in perpendicular to the level spreader. As is standard practice, a manhole will be installed to facilitate the change in direction and allow for maintenance.

68. Where would the stumps and tree canopy waste from tree clearing activities be disposed of? If this material is removed from the site, how many truck loads would be required?

RESPONSE: The majority of stumps and tree canopy waste from clearing activities will be ground up and re-used on-site to create woody debris berms that will be installed as intermediate sediment barriers in the northern portion of the site. Excess material will be disposed of and/or repurposed off-site by the tree clearing company.

69. Would hardwood logs resulting from tree clearing be used on-site for mulch or be transported off-site for another use such as locally sustainable furniture making?

RESPONSE: The off-Site use of logs produced from the Site will not be limited or affected by the logging or construction activities. The Petitioner is committed to seeking local vendors interested in using the hardwood removed from the Project.

70. Describe the visibility of the project from abutting residentially developed parcels. Would the facility be visible year-round and/or seasonally? How can views be mitigated?

RESPONSE: See Exhibit 6 and Exhibit 7. Petitioner is willing to consider agricultural fencing to mitigate views to abutting properties.

71. Can landscaping be added to the south side of the access road to screen views of the pad-mounted equipment from the residential property at 400 Denslow Hill Road?

RESPONSE: Petitioner is willing to install standard screening landscaping around the pad-mounted equipment to the extent required as a condition of approval of this Petition.

72. Is the large diameter oak tree along the northeast corner of 400 Denslow Hill Road being removed to accommodate the access drive and/or electrical interconnection?

RESPONSE: The tree in question is located over thirty (30) feet south of the proposed access driveway and is not called to be removed.

73. Can an alternative site access drive be constructed across the property owned by the landlord at 336 Denslow Hill Road?

RESPONSE: The Petitioner reviewed this alternative access at 336 Denslow Hill Road. The grades at the access point are too steep to construct an access road without significant regrading and disturbance.

Facility Maintenance/Decommissioning

74. Referring to Petition Attachment 3, the Operations and Maintenance (O&M) Plan, identify the water source required for panel washing.

RESPONSE: In the event the modules require cleaning, commercially-sourced clean water with no chemicals or additives will be used.

75. Referring to Petition Attachment 3, the O&M Plan, Section II, Spill Prevention Control Plan-Reporting, if a spill occurs, what entity is responsible for notifying area residents that have water wells?

RESPONSE: The U.S. Environmental Protection Agency (USEPA) regulations require the reporting of a spill or release that exceeds USEPA's minimum reporting requirements to the USEPA and to the CT DEEP. If the spill or release presents the potential for a fire or danger to the public, Petitioner will need to notify the local Fire Department. There is not a requirement to notify the general public. However, the DEEP could require the involvement of a Licensed Environmental Professional (LEP) and depending on the level of the release could require public notification and public hearings. The petitioner will follow the instructions of USEPA and DEEP and comply with all requirements in such an event.

76. Would replacement modules be stored on-site in the event solar panels are damaged or are not functioning properly? If yes, in what location?

RESPONSE: No, there are no plans to store modules on-site. When the modules initially arrive, they are inspected for any signs of damage. If any damage is found, it will be documented in compliance with the manufacturer's warranty procedure. Once the project is operational, damaged modules would be detected visibly, via annual thermal flight reports, through voltage/amperage testing during the annual O&M inspections, or during a visit in response to a perceived site issue being monitored 24/7/365 by our O&M provider.

77. Referencing Petition Attachment 4- Decommissioning Plan, would decommissioning include the two stormwater basins? If yes, submit a revised decommissioning plan with specific procedures for basin removal, including measures to control stormwater runoff from the decommissioned site.

RESPONSE: At present, Petitioner has no plan to remove the basins nor does Petitioner have the requirement to do so pursuant to its ground lease.

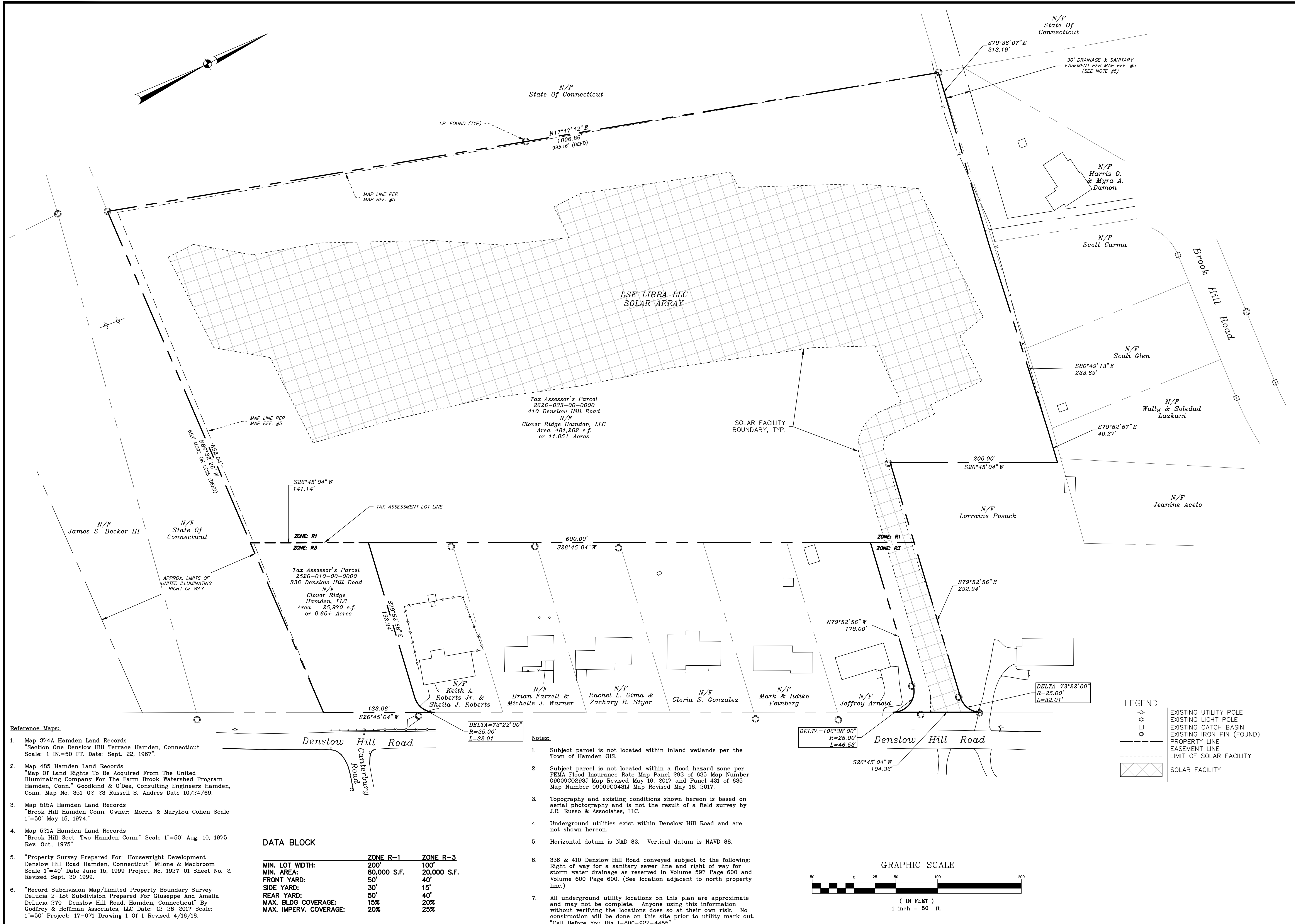
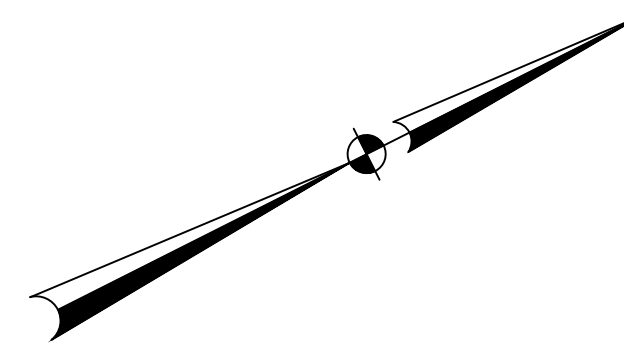
78. Referencing Petition Attachment 4- Decommissioning Plan p. 3, it states "The civil Site restoration will target the restoration of the property to pre-Project conditions." Given that the site is currently forested, would the site be left in a meadow state or planted with tree seedlings? Does the lease agreement specify any type of final land cover once the decommissioning is complete?

RESPONSE: The Site would be replanted with native mix to match existing natural meadows in the area. The final land cover will be a meadow condition.

79. Has the manufacturer of the proposed solar panels conducted Toxicity Characteristic Leaching Procedure (TCLP) testing to determine if the panels would be characterized as hazardous waste at the time of disposal under current regulatory criteria? If so, submit information that indicates the proposed solar modules would not be characterized as hazardous waste. If not, would Lodestar agree to install solar panels that are not classified as hazardous waste through TCLP testing?

RESPONSE: Petitioner has confirmed that it will be utilizing ZNShine, Item/Model Number: ZXM7-SHLDD144 Module Size: 540 for the Project. Attached hereto as Exhibit 4 is a copy of the passing TCLP test results from the manufacturer, verifying that the panels comply with TCLP requirements.

Exhibit 1

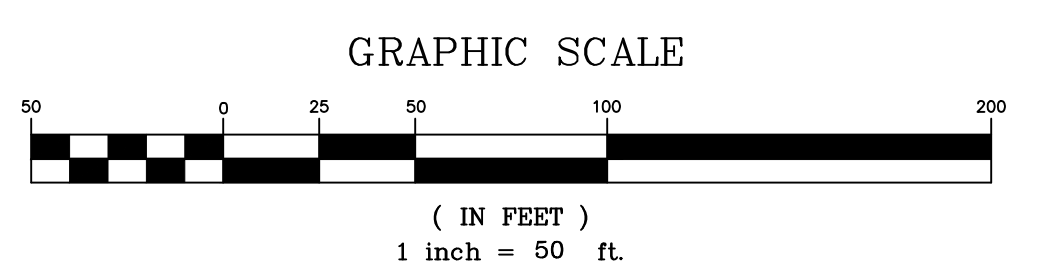


- Reference Maps:**
- Map 374A Hamden Land Records "Section One Denslow Hill Terrace Hamden, Connecticut Scale: 1 IN.=50 FT. Date: Sept. 22, 1967".
 - Map 485 Hamden Land Records "Map Of Land Rights To Be Acquired From The United Illuminating Company For The Farm Brook Watershed Program Hamden, Conn." Goodkind & O'Dea, Consulting Engineers Hamden, Conn. Map No. 351-02-23 Russell S. Andres Date 10/24/69.
 - Map 515A Hamden Land Records "Brook Hill Hamden Conn. Owner: Morris & MaryLou Cohen Scale 1"=50' May 15, 1974."
 - Map 521A Hamden Land Records "Brook Hill Sect. Two Hamden Conn." Scale 1"=50' Aug. 10, 1975 Rev. Oct., 1975"
 - "Property Survey Prepared For: Housewright Development Denslow Hill Road Hamden, Connecticut" Milone & Macbroom Scale 1"=40' Date June 15, 1999 Project No. 1927-01 Sheet No. 2. Revised Sept. 30 1999.
 - "Record Subdivision Map/Limited Property Boundary Survey Delucia 2-Lot Subdivision Prepared For Giuseppe And Amalia Delucia 270 Denslow Hill Road, Hamden, Connecticut" By Godfrey & Hoffman Associates, LLC Date: 12-28-2017 Scale: 1"=50' Project: 17-071 Drawing 1 Of 1 Revised 4/16/18.

DATA BLOCK

	ZONE R-1	ZONE R-3
MIN. LOT WIDTH:	200'	100'
MIN. AREA:	80,000 S.F.	20,000 S.F.
FRONT YARD:	50'	40'
SIDE YARD:	30'	15'
REAR YARD:	50'	40'
MAX. BLDG COVERAGE:	15%	20%
MAX. IMPERV. COVERAGE:	20%	25%

- Notes:**
- Subject parcel is not located within inland wetlands per the Town of Hamden GIS.
 - Subject parcel is not located within a flood hazard zone per FEMA Flood Insurance Rate Map Panel 293 of 635 Map Number 09009C0293J Map Revised May 16, 2017 and Panel 431 of 635 Map Number 09009C0431J Map Revised May 16, 2017.
 - Topography and existing conditions shown hereon is based on aerial photography and is not the result of a field survey by J.R. Russo & Associates, LLC.
 - Underground utilities exist within Denslow Hill Road and are not shown hereon.
 - Horizontal datum is NAD 83. Vertical datum is NAVD 88.
 - 336 & 410 Denslow Hill Road conveyed subject to the following: Right of way for a sanitary sewer line and right of way for storm water drainage as reserved in Volume 597 Page 600 and Volume 600 Page 600. (See location adjacent to north property line.)
 - All underground utility locations on this plan are approximate and may not be complete. Anyone using this information without verifying the locations does so at their own risk. No construction will be done on this site prior to utility mark out. "Call Before You Dig 1-800-922-4455".



- LEGEND**
- EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING CATCH BASIN
 - EXISTING IRON PIN (FOUND)
 - PROPERTY LINE
 - EASEMENT LINE
 - LIMIT OF SOLAR FACILITY
 - SOLAR FACILITY

RUSSO
SURVEYORS-ENGINEERS
SERVING CT & MA
J.R. Russo & Associates, LLC
PO Box 988, 1 Shoham Rd East Windsor, CT 06088
www.jrusso.com · CT 860.623.0569 · MA 413.651.8518

LODESTAR ENERGY

REVISIONS

NO.	DATE	BY	CHK	DESCRIPTION

BY: CJC CHK: TAC

Denslow Hill Solar
410 Denslow Hill Road
Hamden, Connecticut 06514
MBL: 2626-033-00-0000 (Zones: R-1 & R-3)

Proposed Solar Array Boundary Map

DATE: 6-26-2024
SCALE: 1"=50'
JOB NUMBER: 2023-024
SHEET: 1 of 1

Exhibit 2



Sill Incident Report Form

Project: _____

Date of Spill: _____

Spill Description:

Location of Spill: _____

Time of Day: _____

Day of Week: _____

Vehicle No. or Type _____

Were Police Called? _____

Police Report No.: _____



LODESTAR ENERGY

Describe any equipment or environmental damage/estimate cost:

Witnesses (attach written statements):

Name: _____ Job Title: _____ Telephone: _____

Name: _____ Job Title: _____ Telephone: _____

Name: _____ Job Title: _____ Telephone: _____

Exhibit 3

May 31, 2024

Mr. David George
Heritage Consultants, LLC
830 Berlin Turnpike
Berlin, CT 06037
(sent only via email to dgeorge@heritage-consultants.com)

Subject: Archaeological Reconnaissance Survey
410 Denslow Hill Road
Hamden, Connecticut

Dear Mr. George:

The State Historic Preservation Office (SHPO) has reviewed the technical report titled *Phase IB Cultural Resources Reconnaissance Survey of the Proposed Hamden Solar Project at 410 Denslow Hill Road in Hamden, Connecticut* prepared by Heritage Consultants, LLC (Heritage), dated May 2024. The investigation was completed at the request of this office in a letter dated April 19, 2024. The submitted technical report appears to meet the standards set forth in the *Environmental Review Primer for Connecticut's Archaeological Resources*. SHPO understands that the proposed project entails the construction of a 1.5 megawatt ground-mounted solar voltaic facility at the referenced address. The proposed facilities will include solar panels, centralized inverters, transformers, electrical lines, a step-up transformer, fencing, a station controller, access road, and a substation. The project will require approval from the Connecticut Siting Council; therefore, it is subject to review by this office.

A cultural resources reconnaissance survey of the Area of Potential Effect (APE) for the project was completed by Heritage in April of 2024. The investigation included comprehensive background research that examined historic maps and aerial imagery as well as previously identified cultural resources located in proximity to the APE. The review identified one previously reported archaeological site (Site 62-1), one property (Hamden High School) listed on the National Register of Historic Places (NRHP), and three properties listed on the State Register of Historic Places within one mile of the project area. The report concluded that the proposed activities will not impact any previously identified cultural resource.

During survey, 135 of 135 planned shovel tests were excavated at 15-meter intervals along transects placed 15 meters apart throughout the APE. The field effort resulted in the recovery of two Precontact Period artifacts from two shovel tests and eight Postcontact Period artifacts from three shovel tests. Precontact cultural material consisted of a quartz projectile point tip and a quartz biface fragment identified within a plowzone context. Delineation shovel testing around the find spots failed to yield evidence of additional cultural material or features. Postcontact cultural material consisted of seven glass shards and a metal clasp recovered from a plowzone context. The report concluded that the Postcontact Period cultural materials were

representative of typical field scatter. Heritage determined that the identified archaeological deposits lack research potential and are not eligible for listing on the NRHP. Finally, the report noted the presence of stone walls within the APE. SHPO recommends avoidance of impacts to extant stone walls to the greatest extent possible. Based on the information submitted to this office, it is the opinion of SHPO that no historic properties will be affected by the proposed solar facility and no additional archaeological investigation is warranted. This comment is conditional upon the submission of two bound copies of the final report; one will be kept for use in the office and the other will be transferred to the Thomas J. Dodd Research Center at the University of Connecticut (Storrs) for permanent archiving and public accessibility.

This office appreciates the opportunity to review and comment upon this project. Do not hesitate to contact Cory Atkinson, Staff Archaeologist and Environmental Reviewer, for additional information at (860) 500-2458 or cory.atkinson@ct.gov.

Sincerely,



Jonathan Kinney
State Historic Preservation Officer

Cc (via email): Macel, Lodestar



Exhibit 4

TÜV Rheinland (Shanghai) Co., Ltd.

ZNshine Solar Module TCLP Report

Commissioned Test

Client: ZNSHINE PV-TECH Co., Ltd.

Report No.: CN227VOX 001

September 2022

TÜV Rheinland (Shanghai) Co., Ltd.

B1-13F No. 177, Lane 777 West Guangzhong Road
Jing'an District, Shanghai, P.R.China

www.tuv.com/solar

Please contact: Allen Qian
Phone: +86 21 6081 4897
Email: Allen.Qian@tuv.com

Rev No.	Rev. Date	Content/Changes	Prepared/revised	Checked/released
1	30 September 2022	Formal Report	Allen Qian	Shangshang Ju

X *Allen Qian*

Inspector

X *Shangshang Ju*

Reviewer

Disclaimer

TÜV Rheinland has prepared this document solely for the project referred to in this report on behalf of the Client based on the hereto related appointment letter ("Agreement"). This report is, in all cases, subject to the terms and conditions set forth herein and in the Agreement, in particular exclusions on liability.

This report is a review covering technical aspects of the project based on information provided by the Client. It shall not be relied upon as an alternative to a legal or financial assessment particularly since it is not intended to constitute any guarantee of the financial performance of the project. Also, the report should not be relied upon or used for any other project without an independent check being carried out as to its suitability. Any other use requires the prior written consent of TÜV Rheinland. Publication or dissemination of extracts, appraisals or any other revision and adaptation hereof, in particular for advertising purposes, requires the prior written consent of TÜV Rheinland.

TÜV Rheinland has assumed and relied upon the accuracy and completeness of the information obtained from Client for the purpose of rendering the report. No representation or warranty, express or implied, is or will be made in relation to the accuracy or completeness of such Client information or that the use of this report will lead to any particular outcome or result. TÜV Rheinland accepts no responsibility or liability for the consequences of this report being used for a purpose other than the purposes for which it was commissioned and TÜV Rheinland accepts no responsibility or liability for this report to any party other than the Client as set forth in the Agreement.

Client:	ZNSHINE PV-TECH Co., Ltd.
Quotation No.:	245782345
Order No.:	244446750
Order Date:	31.08.2022

List of Contents

1. Executive Summary.....	6
2. Results	7
3. Equipment List.....	8

List of Abbreviations

ND: Not detected

µg/L: Microgram per liter

mg/L: Milligrams per liter

TCLP: Toxicity Characteristic Leaching Procedure

TUV: TÜV Rheinland (Shanghai) Co., Ltd.

J-Box: Junction-Box

1. Executive Summary

General Information	
Client	ZNSHINE PV-TECH Co., Ltd.
Project Name	ZNshine Solar Module TCLP
Product Specification	ZNshine Solar Photovoltaic Module: ZXM7-SHLDD144-XXX/M, ZXM6-NHLDD144-XXX/M
Detail of sample	<ol style="list-style-type: none"> 1. A section of the laminate, including the glass superstrate and substrate (top and bottom), the encapsulant, the cell and the interconnect wires (aka ribbons) 2. A section of the aluminum frame with the adhesive used to adhere the frame to the laminate 3. A complete junction box assembly, including the adhesive used to adhere the assembly to the substrate, the junction box, diodes, cables, connectors and potting compound.
Test Details	
Scope of work	TCLP
Test Period	22.09.2022 - 28.09.2022
Laboratory	TÜV Building III, No.177, Lane 777, West Guangzhong Road Jingan District, Shanghai, China
Reference Standards	For Arsenic, Mercury, Selenium: HJ/T 300-2007; HJ694-2014
	For Barium, Cadmium, Chromium, Lead, Silver: HJ/T 300-2007; HJ776-2015
Result	<ol style="list-style-type: none"> 1. Arsenic was found in Laminate, Frame, J-box. 2. Barium was found in frame. 3. Mercury was found in J-box. 4. Other elements were not found. <p>Note: Refer to table 1 for data Detail in next page.</p>

2. Results

Table 1:

Metal	Results			Threshold	Unit
	Laminate	Frame	J-box		
Arsenic	1.0	1.4	1.0	0.3	µg/L
Barium	ND	0.03	ND	0.01	mg/L
Cadmium	ND	ND	ND	0.05	mg/L
Chromium	ND	ND	ND	0.03	mg/L
Lead	ND	ND	ND	0.1	mg/L
Mercury	ND	ND	0.08	0.04	µg/L
Selenium	ND	ND	ND	0.4	µg/L
Silver	ND	ND	ND	0.03	mg/L

Remark: ND: Not detected.

Reference Standards: For Arsenic, Mercury, Selenium: HJ/T 300-2007; HJ694-2014

Reference Standards: For Barium, Cadmium, Chromium, Lead, Silver: HJ/T 300-2007; HJ776-2015

3. Equipment List

Table 2:

Equipment name	Equipment Type	Equipment number
Atomic fluorescence photometer	AFS8510	F-004-01
Inductively coupled plasma emission spectrometer	Icap6000	Icap6000

End of the report

ZXM7-SHLDD144 Series ZNSHINESOLAR

Znshinesolar 10BB HALF-CELL Bifacial Light-Weight Double Glass Monocrystalline PERC PV Module

525W | 530W | 535W | 540W | 545W | 550W



Excellent cells efficiency

MBB technology decreases the distance between busbar and finger grid line which is benefit to power increase.



Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and early morning.



Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



Adapt To Harsh Outdoor Environment

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



TIER 1

Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing.



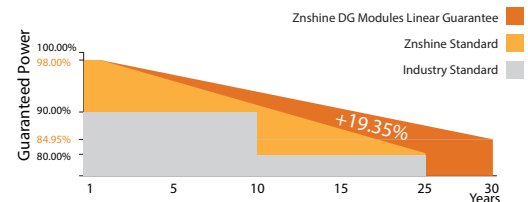
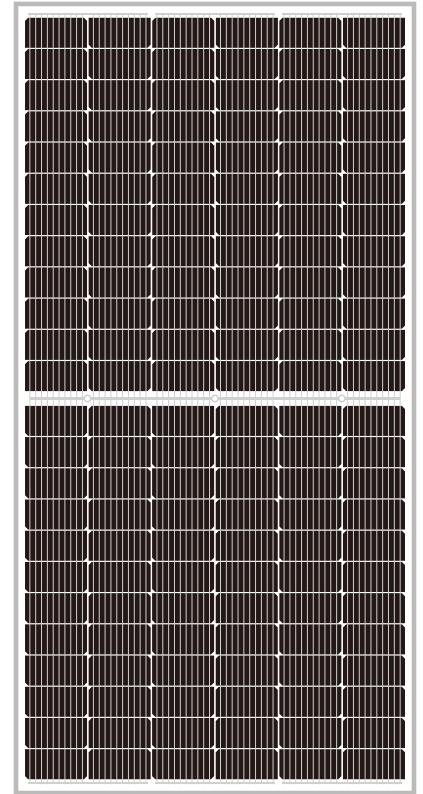
Excellent Quality Management System

Warranted reliability and stringent quality assurances well beyond certified requirements.



Bifacial Technology

Up to 25% additional power gain from back side depending on albedo.



12 years product guarantee
30 years output guarantee



0.45% annual degradation
over 30 years



IEC61215/IEC61730/IEC61701/IEC62716/UL61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO45001: Occupational Health and Safety Management System

Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer. With the state-of-the-art production lines, the company boasts module capacity of 6GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.

www.znshinesolar.com

ELECTRICAL CHARACTERISTICS | STC*

Nominal Power Watt Pmax(W)*	525	530	535	540	545	550
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.90	41.10	41.30	41.50	41.70	41.90
Maximum Power Current Imp(A)	12.85	12.91	12.96	13.02	13.07	13.13
Open Circuit Voltage Voc(V)	49.20	49.40	49.60	49.80	50.00	50.20
Short Circuit Current Isc(A)	13.59	13.65	13.71	13.77	13.83	13.89
Module Efficiency (%)	20.32	20.52	20.71	20.90	21.10	21.29

*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

*Measuring tolerance: ±3%

ELECTRICAL CHARACTERISTICS | NMOT*

Maximum Power Pmax(Wp)	392.70	396.40	399.90	403.60	406.80	410.80
Maximum Power Voltage Vmp(V)	38.00	38.20	38.40	38.50	38.80	38.90
Maximum Power Current Imp(A)	10.33	10.38	10.42	10.47	10.49	10.56
Open Circuit Voltage Voc(V)	46.00	46.20	46.30	46.50	46.70	46.90
Short Circuit Current Isc(A)	10.98	11.02	11.07	11.12	11.17	11.22

*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s

ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN

Front power Pmax/W	525	530	535	540	545	550
Total power Pmax/W	656	663	669	675	681	688
Vmp/V(Total)	41.00	41.20	41.40	41.60	41.80	42.00
Imp/A(Total)	16.01	16.08	16.15	16.23	16.30	16.37
Voc/V(Total)	49.30	49.50	49.70	49.90	50.10	50.30
Isc/A(Total)	16.95	17.02	17.10	17.17	17.25	17.32

MECHANICAL DATA

Solar cells	Mono PERC
Cells orientation	144 (6×24)
Module dimension	2278×1134×30 mm(With Frame)
Weight	33.5 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68, 3 diodes
Cables	4 mm ² ,350 mm
Connectors	MC4-compatible

TEMPERATURE RATINGS

NMOT	44°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.35%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.29%/°C	Maximum series fuse	30 A
Temperature coefficient of Isc	0.05%/°C	Maximum load(snow/wind)	5400 Pa / 2400 Pa
Refer.Bifacial Factor	70±5%		

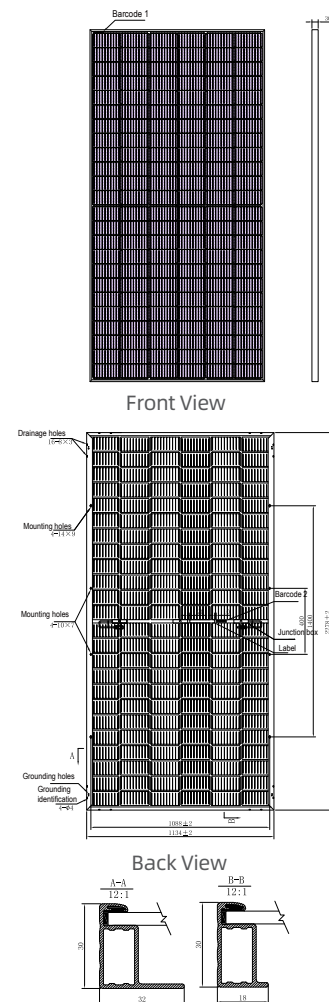
*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

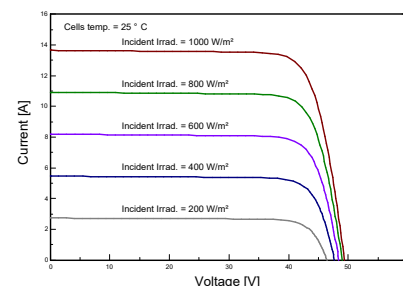
PACKAGING CONFIGURATION

Piece/Box	36	
Piece/Container(40'HQ)	720	*Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.
Piece/Container(with additional small package)	/	

DIMENSIONS(MM)



I-V CURVES OF PV MODULE(530W)



P-V CURVES OF PV MODULE(530W)

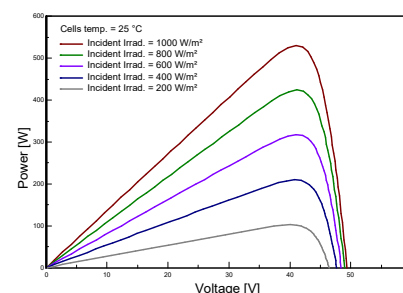


Exhibit 5

Dean Gustafson

From: Tur, Maria <maria_tur@fws.gov>
Sent: Thursday, April 11, 2024 12:56 PM
To: Dean Gustafson
Subject: Re: [EXTERNAL] Project Code: 2024-0047278 - LSE Libra LLC Hamden Solar Facility Hamden Connecticut - Take and ITP Determination
Attachments: image001.png; image002.png; image003.png

Hello Dean,

Thank you for your consideration of potential impacts to the federally endangered northern long-eared bat. After an assessment of whether or not take was reasonably certain to occur, the applicant did not apply for an Incidental Take Permit through development of a Habitat Conservation Plan (HCP).

The Endangered Species Act defines "take" as: to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct. If at any point the applicant determines that take is reasonably certain to occur as a result of project activities despite avoidance measures, the applicant can reach out to our office to discuss how to apply for an Incidental Take Permit through development of an HCP.

Given the information and analysis you have provided, we do not have any additional concerns for impacts to the species. Thank you for coordinating with us.

Maria Tur
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301
Cell: (603) 568-4871
<https://www.fws.gov/office/new-england-ecological-services>

From: Dean Gustafson <dgustafson@allpointstech.com>
Sent: Sunday, April 7, 2024 2:18 PM
To: Tur, Maria; New England FO, FW5
Cc: Deb Leonardo
Subject: [EXTERNAL] Project Code: 2024-0047278 - LSE Libra LLC Hamden Solar Facility Hamden Connecticut - Take and ITP Determination

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good afternoon Maria,

Please find attached our analysis that the proposed Project would not be reasonably result in a take of NLEB and an incidental take permit from FWS is not required.

Therefore, we respectfully request FWS concurrence with this determination that the proposed habitat modifications that incorporate a tree clearing TOYR and nest box habitat enhancements will not result in a take for NLEB, and no ITP is required.

Please feel free to contact me with any questions or if you require additional information.

Thank you,
Dean

[cid:image001.png@01DA88F6.5836CE10]
DEAN GUSTAFSON
Senior Biologist
D | 860.552.2033 · M | 860.984.9515 · W |
<http://www.allpointstech.com/><<http://www.allpointstech.com/>>
567 Vauxhall Street Extension – Suite 311, Waterford, CT 06385

From: Tur, Maria <maria_tur@fws.gov>
Sent: Thursday, March 21, 2024 3:50 PM
To: Dean Gustafson <dgustafson@allpointstech.com>
Subject: Re: [EXTERNAL] RE: Project Code: 2024-0047278 - LSE Libra LLC Hamden Solar Facility Hamden Connecticut - May Effect Determination

Hello Dean, If there's no Federal nexus, the project proponent needs to determine whether take is reasonably certain to occur. If that is the case, please reach back to our office to learn more about

[cid:image002.png@01DA88F6.5836CE10]
Caution: External (maria_tur@fws.gov<mailto:maria_tur@fws.gov>)
First-Time Sender
[cid:image003.png@01DA88F6.5836CE10]

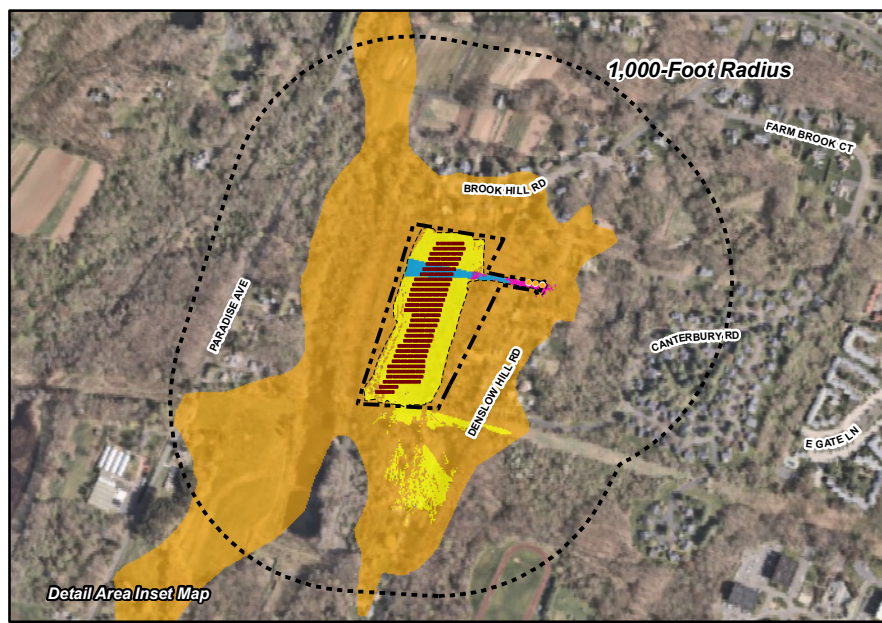
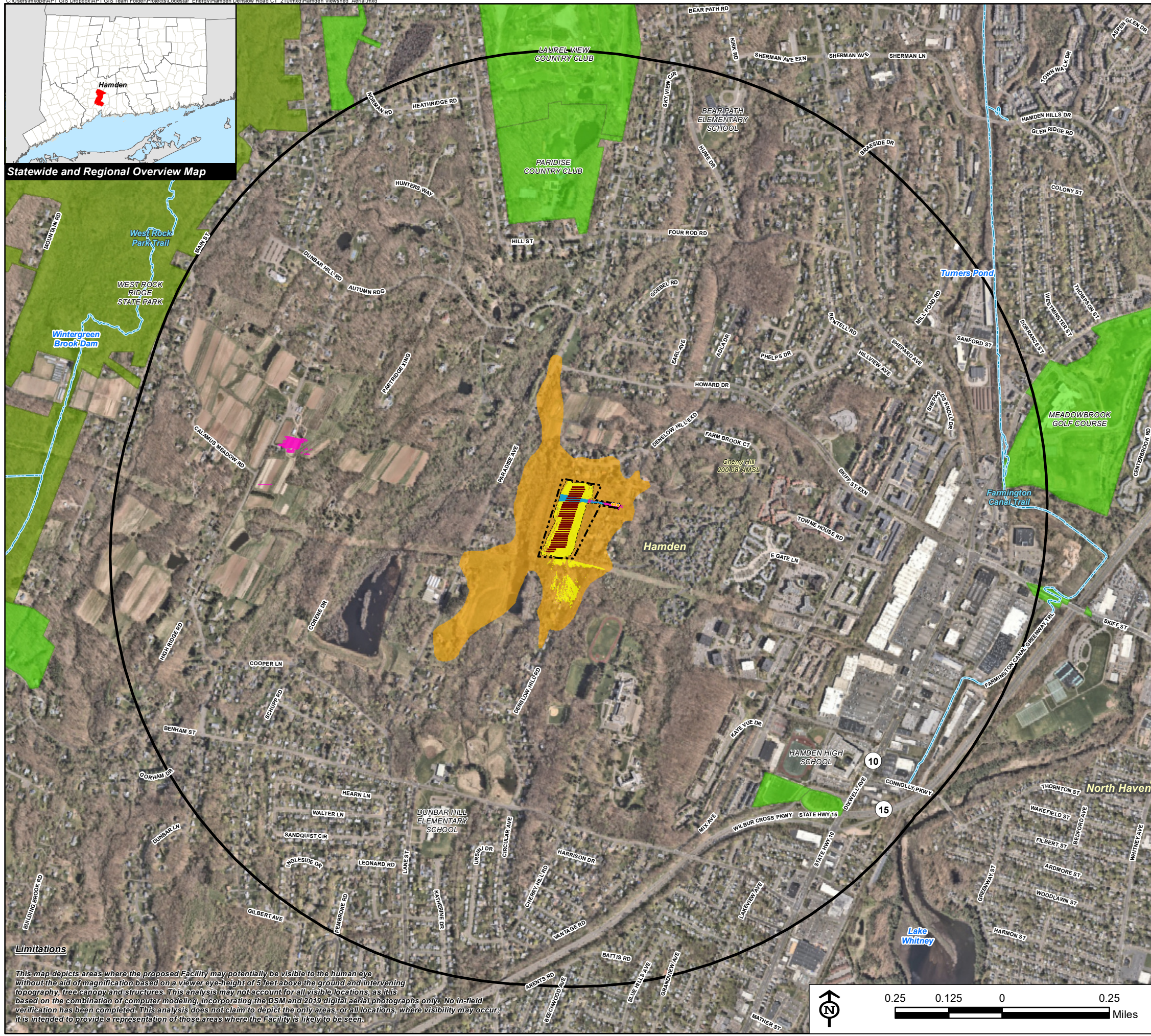
Hello Dean,

If there's no Federal nexus, the project proponent needs to determine whether take is reasonably certain to occur. If that is the case, please reach back to our office to learn more about applying for an incidental take permit through a Habitat Conservation Plan (HCP).

Maria Tur

Exhibit 6

Statewide and Regional Overview Map



Viewshed Analysis Map

Denslow Hill Solar
410 Denslow Hill Road
Hamden, Connecticut

Proposed solar modules to be mounted on approximate 10' AGL support structures. Proposed interconnect utility poles to be approximately 40' AGL. Forest canopy height and topographic contours are derived from LiDAR data. Study area encompasses a 1-mile radius and includes 2,402 acres. Information provided on this map has not been field verified. Base Map Source: 2024 Nearmap Aerial Photograph Map Date: June 2024

Legend

- Property
- Utility Pole
- Solar Module
- Limit of Disturbance
- Study Area (1-Mile Radius)
- Areas of Potential Seasonal Visibility, Proposed Utility Poles and/or Modules (68 Acres)
- Proposed Modules Only (9 Acres)
- Proposed Modules and Utility Poles (1 Acre)
- Proposed Utility Poles Only (1 Acre)
- Municipal Boundary
- CT Blue Blaze Hiking Trail
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park
- Protected Open Space Property
- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data
A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The first return LiDAR LAS values, associated with the highest feature in the landscape (such as a treetop or top of building), were used to capture the natural and built features on the Earth's surface beyond the approximate limits of clearing associated with the proposed solar facility. The "bare-earth" return values were utilized to reflect proposed conditions where vegetative clearing associated with the proposed solar facility would occur.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Dedicated Open Space & Recreation Areas
Connecticut Department of Energy and Environmental Protection (DEEP): DEEP Property (May 2007); Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)
Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

**Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.

Limitations

This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM and 2019 digital aerial photographs only. No in-field verification has been completed. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

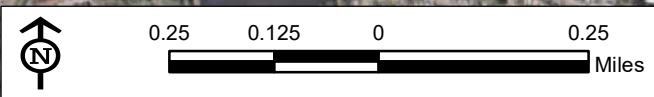
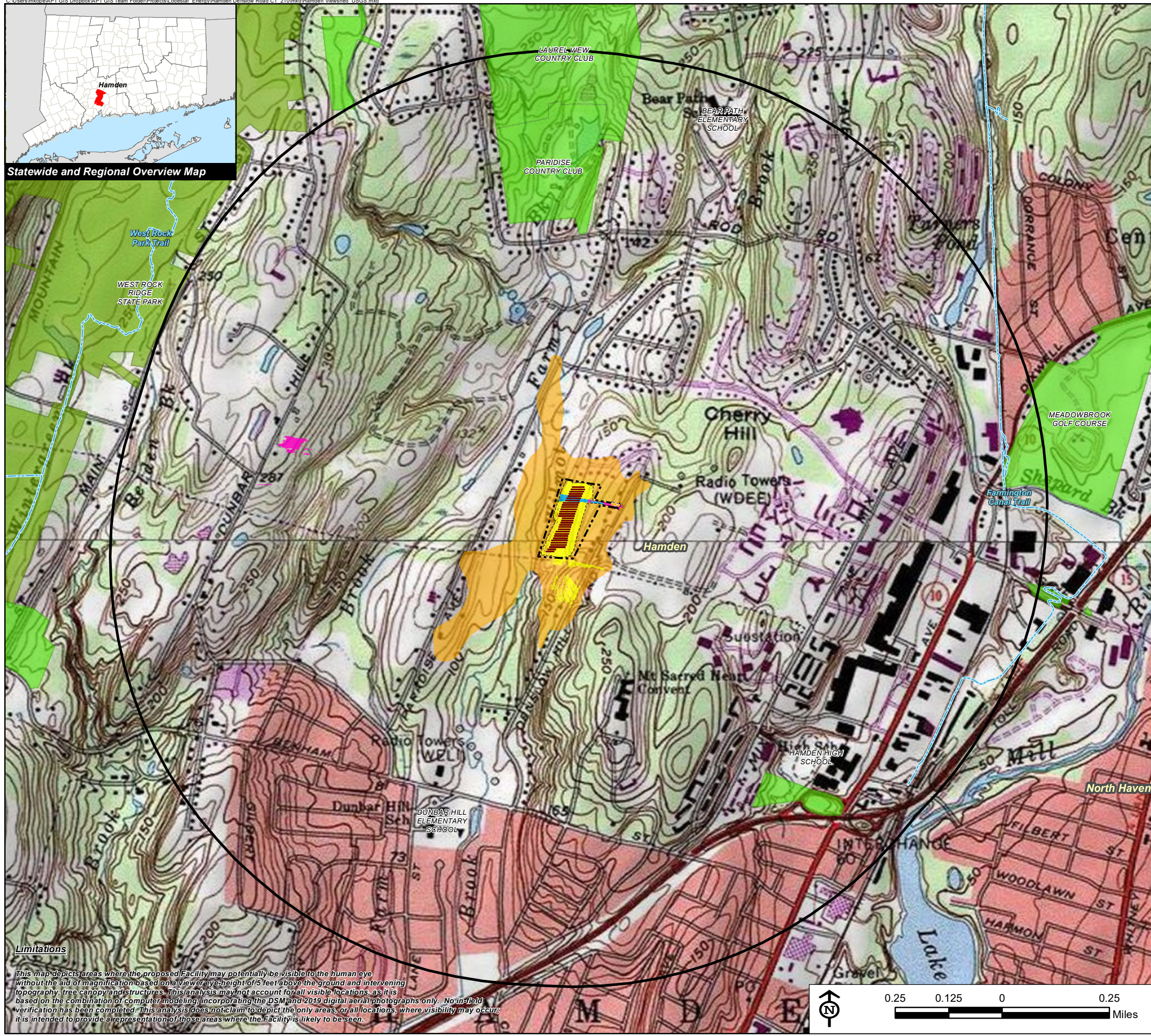
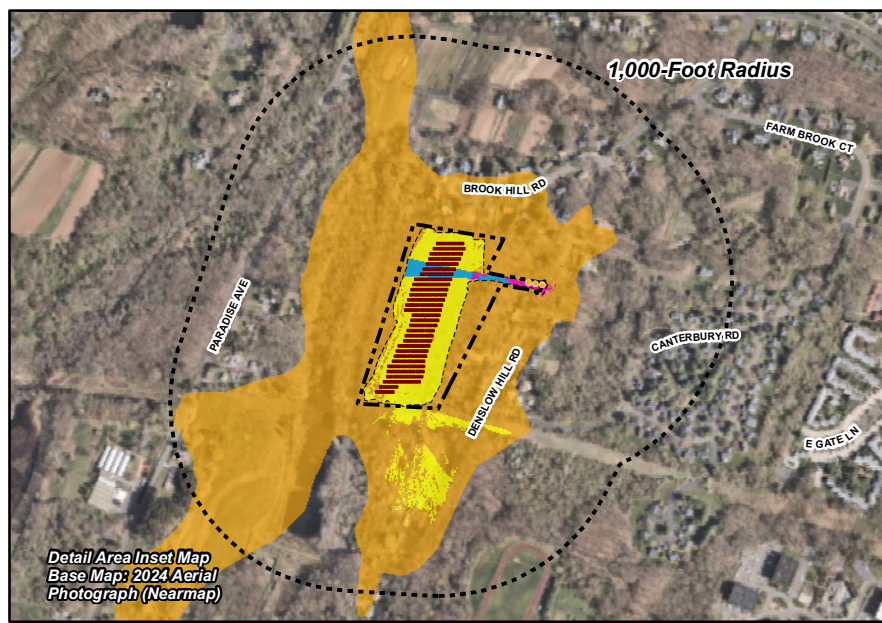


Exhibit 7



Statewide and Regional Overview Map

Limitations
 This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM and 2019 digital aerial photographs only. No in-field verification has been completed. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.



Viewshed Analysis Map

Denslow Hill Solar
 410 Denslow Hill Road
 Hamden, Connecticut

Proposed solar modules to be mounted on approximate 10' AGL support structures. Proposed interconnect utility poles to be approximately 40' AGL. Forest canopy height and topographic contours are derived from LiDAR data. Study area encompasses a 1-mile radius and includes 2,402 acres. Information provided on this map has not been field verified. Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Mount Carmel, CT (1984) and New Haven, CT (1984) Map Date: June 2024

Legend

Property	CT Blue Blaze Hiking Trail
Utility Pole	Trail
Solar Module	Scenic Highway
Limit of Disturbance	DEEP Boat Launches
Study Area (1-Mile Radius)	Municipal and Private Open Space Property
Areas of Potential Seasonal Visibility, Proposed Utility Poles and/or Modules (68 Acres)	State Forest/Park
Predicted Year-Round Visibility (11 Acres Total)	Predicted Open Space Property
Proposed Modules Only (9 Acres)	Federal
Proposed Modules and Utility Poles (1 Acre)	Land Trust
Proposed Utility Poles Only (1 Acre)	Municipal
Municipal Boundary	Private
	State

Data Sources:
Physical Geography / Background Data
 A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The first return LiDAR LAS values, associated with the highest feature in the landscape (such as a treetop or top of building), were used to capture the natural and built features on the Earth's surface beyond the approximate limits of clearing associated with the proposed solar facility. The "bare-earth" return values were utilized to reflect proposed conditions where vegetative clearing associated with the proposed solar facility would occur.
 Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)
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 Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other
 CTDOT Scenic Strips (based on Department of Transportation data)
Notes
 **Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.

Exhibit 8

REMOTE FIELD REVIEW



CT SITING COUNCIL PETITION NO. 1627
RESPONSE TO INTERROGATORY 60
DENSLOW HILL SOLAR
410 DENSLOW HILL ROAD
HAMDEN, CT

PREPARED FOR:



**LODESTAR
ENERGY**

PREPARED BY:

ALL-POINTS TECHNOLOGY CORPORATION, P.C.
567 Vauxhall Street Extension – Suite 311
Waterford, CT 06385

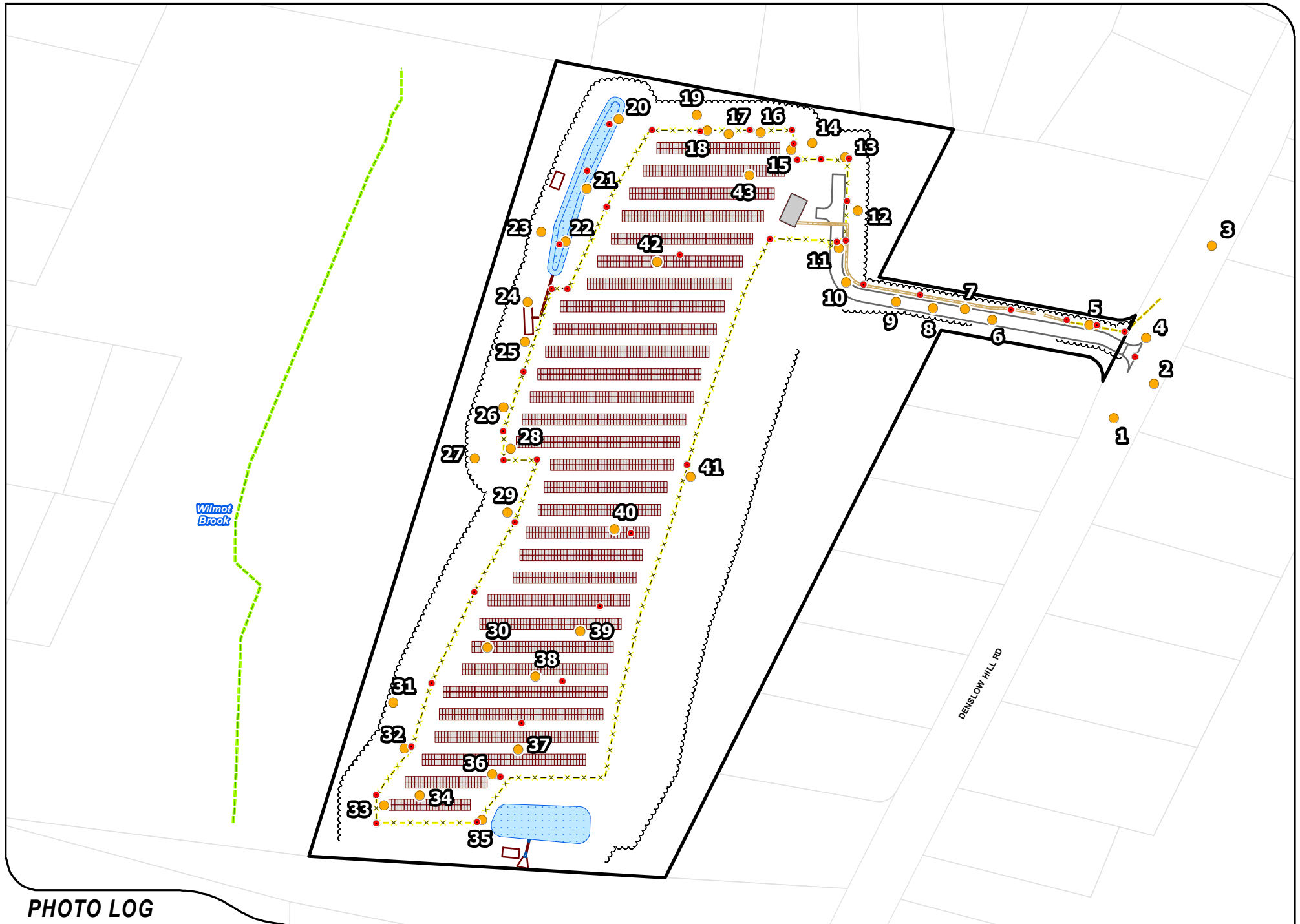
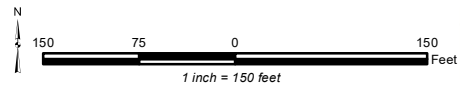


PHOTO LOG

- | | | | | |
|-----------------------------|--------------------|--------------|-----------------------|------------------------------|
| Photo Locations | Solar Module | Access Drive | OH Electrical Utility | Approximate Wetland Boundary |
| Photo Markers | Concrete Pad | Riprap Area | UG Electrical Utility | |
| Property | Stormwater Basin | Fence | Utility Pole | |
| Approximate Parcel Boundary | Drainage Structure | Treeline | Limit of Disturbance | |



Proposed Solar Energy Facility
 Denslow Hill Solar
 410 Denslow Hill Road
 Hamden, Connecticut



PHOTO

1

DESCRIPTION

DENSLOW HILL ROAD LOOKING NORTHEAST

PHOTOGRAPHED ON 4/30/2024



PROPOSED ACCESS DRIVE

PHOTO

2

DESCRIPTION

DENSLOW HILL ROAD LOOKING NORTHWEST



PHOTOGRAPHED ON 4/30/2024

PHOTO

3

DESCRIPTION

DENSLOW HILL ROAD LOOKING SOUTHWEST



PROPOSED UTILITY POLES

PHOTO

DESCRIPTION

4

DENSLow HILL ROAD AT END OF PROPOSED ACCESS DRIVE LOOKING WEST

PHOTOGRAPHED ON 4/30/2024



PHOTO

5

DESCRIPTION

PROPOSED ACCESS DRIVE LOOKING WEST



PROPOSED UNDERGROUND ELECTRICAL UTILITY

PHOTO

DESCRIPTION

6

PROPOSED ACCESS DRIVE LOOKING WEST



PROPOSED UNDERGROUND ELECTRICAL UTILITY



PHOTOGRAPHED ON 4/30/2024

PHOTO

DESCRIPTION

7

PROPOSED ACCESS DRIVE LOOKING WEST



PROPOSED UNDERGROUND ELECTRICAL UTILITY

PHOTO

DESCRIPTION

8

PROPOSED ACCESS DRIVE LOOKING WEST

PHOTOGRAPHED ON 4/30/2024



PROPOSED UNDERGROUND ELECTRICAL UTILITY

PHOTO

9

DESCRIPTION

PROPOSED ACCESS DRIVE LOOKING WEST



PHOTOGRAPHED ON 4/30/2024

PHOTO

DESCRIPTION

10

PROPOSED ACCESS DRIVE LOOKING WEST



PROPOSED FENCELINE



PHOTOGRAPHED ON 4/30/2024

PHOTO

DESCRIPTION

11

PROPOSED ACCESS DRIVE LOOKING NORTH



PHOTOGRAPHED ON 4/30/2024

PHOTO

12

DESCRIPTION

PROPOSED ACCESS DRIVE LOOKING NORTHWEST



PROPOSED FENCELINE



PHOTOGRAPHED ON 4/30/2024

PHOTO

13

DESCRIPTION

LOOKING WEST



PHOTO

14

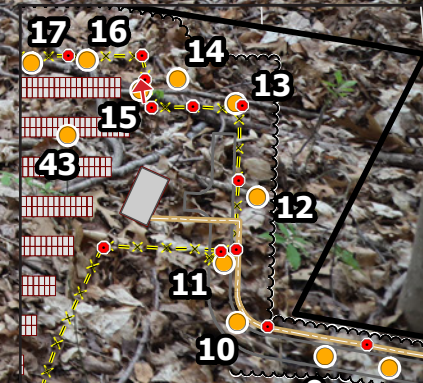
DESCRIPTION

LOOKING WEST

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE



PHOTOGRAPHED ON 4/30/2024

PHOTO

15

DESCRIPTION

LOOKING NORTH



PROPOSED FENCELINE

PHOTO

16

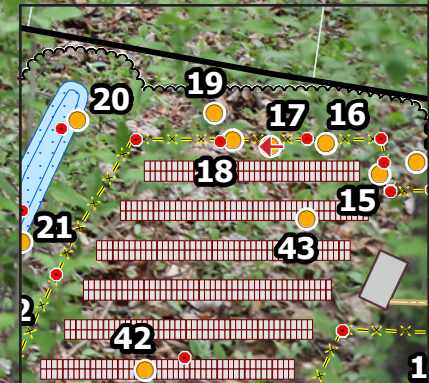
DESCRIPTION

LOOKING WEST

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE



PHOTOGRAPHED ON 4/30/2024

PHOTO

17

DESCRIPTION

LOOKING WEST



PROPOSED FENCELINE

PHOTO

18

DESCRIPTION

LOOKING WEST

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE



PHOTO

DESCRIPTION

19

LOOKING SOUTHWEST



PHOTO

20

DESCRIPTION

LOOKING SOUTHWEST



PROPOSED STORMWATER BASIN

PHOTOGRAPHED ON 4/30/2024

PHOTO

21

DESCRIPTION

LOOKING SOUTH



PHOTOGRAPHED ON 4/30/2024

PHOTO

22

DESCRIPTION

LOOKING SOUTH



PROPOSED FENCELINE

PROPOSED STORMWATER BASIN

PHOTO

23

DESCRIPTION

LOOKING SOUTH

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE

PHOTO
24

DESCRIPTION
LOOKING SOUTH

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE

PHOTO
25

DESCRIPTION
LOOKING SOUTH

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE

PHOTO
26

DESCRIPTION
LOOKING SOUTH



PHOTOGRAPHED ON 4/30/2024

PHOTO

27

DESCRIPTION

LOOKING EAST



PROPOSED FENCELINE

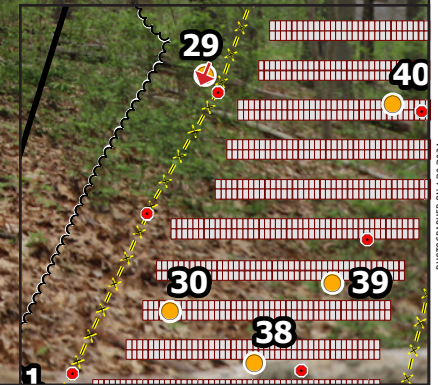
PHOTO
28

DESCRIPTION
LOOKING SOUTH

PHOTOGRAPHED ON 4/30/2024



PROPOSED FENCELINE



PHOTO

29

DESCRIPTION

LOOKING SOUTHWEST



PHOTO

30

DESCRIPTION

LOOKING SOUTHWEST



PHOTO

31

DESCRIPTION

LOOKING SOUTHEAST



PHOTO

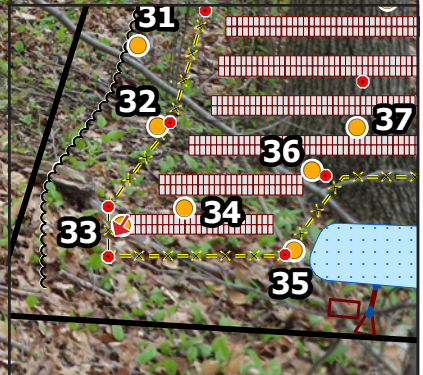
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DESCRIPTION

LOOKING SOUTHWEST



PROPOSED FENCELINE



PHOTO

33

DESCRIPTION

LOOKING SOUTHWEST



PHOTO

34

DESCRIPTION

LOOKING SOUTHEAST



PHOTO

35

DESCRIPTION

LOOKING NORTHEAST



PHOTO

36

DESCRIPTION

LOOKING SOUTHEAST



PHOTOGRAPHED ON 4/30/2024

PHOTO

37

DESCRIPTION

LOOKING NORTH



PHOTOGRAPHED ON 4/30/2024

PHOTO

38

DESCRIPTION

LOOKING EAST



PHOTOGRAPHED ON 4/30/2024

PHOTO

39

DESCRIPTION

LOOKING NORTHEAST



PHOTO

40

DESCRIPTION

LOOKING EAST



PHOTO

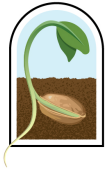
41

DESCRIPTION

LOOKING NORTH

PHOTOGRAPHED ON 4/30/2024

Exhibit 9



ERNST SEEDS

Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: June 30, 2024

Northeast Solar Pollinator Buffer Mix - ERNMX-610

	Botanical Name	Common Name	Price/Lb
37.00 %	<i>Schizachyrium scoparium, Fort Indiantown Gap-PA Ecotype</i>	Little Bluestem, Fort Indiantown Gap-PA Ecotype	13.58
36.30 %	<i>Bouteloua curtipendula, Butte</i>	Sideoats Grama, Butte	24.13
4.00 %	<i>Chamaecrista fasciculata, PA Ecotype</i>	Partridge Pea, PA Ecotype	12.00
4.00 %	<i>Coreopsis lanceolata</i>	Lanceleaf Coreopsis	28.80
4.00 %	<i>Echinacea purpurea</i>	Purple Coneflower	43.20
3.30 %	<i>Rudbeckia hirta</i>	Blackeyed Susan	31.20
2.30 %	<i>Heliopsis helianthoides, PA Ecotype</i>	Oxeye Sunflower, PA Ecotype	33.60
1.60 %	<i>Penstemon digitalis, PA Ecotype</i>	Tall White Beardtongue, PA Ecotype	168.00
1.50 %	<i>Asclepias tuberosa</i>	Butterfly Milkweed	312.00
1.00 %	<i>Pycnanthemum tenuifolium</i>	Narrowleaf Mountainmint	240.00
0.80 %	<i>Liatris spicata</i>	Marsh Blazing Star	252.00
0.70 %	<i>Monarda fistulosa, Fort Indiantown Gap-PA Ecotype</i>	Wild Bergamot, Fort Indiantown Gap-PA Ecotype	96.00
0.70 %	<i>Senna hebecarpa, VA & WV Ecotype</i>	Wild Senna, VA & WV Ecotype	28.80
0.60 %	<i>Zizia aurea, PA Ecotype</i>	Golden Alexanders, PA Ecotype	72.00
0.50 %	<i>Asclepias incarnata, PA Ecotype</i>	Swamp Milkweed, PA Ecotype	177.60
0.40 %	<i>Aster laevis, NY Ecotype</i>	Smooth Blue Aster, NY Ecotype	336.00
0.40 %	<i>Aster novae-angliae, PA Ecotype</i>	New England Aster, PA Ecotype	336.00
0.30 %	<i>Baptisia australis, Southern WV Ecotype</i>	Blue False Indigo, Southern WV Ecotype	96.00
0.30 %	<i>Tradescantia subaspera, VA Ecotype</i>	Zigzag Spiderwort, VA Ecotype	144.00
0.20 %	<i>Solidago nemoralis, PA Ecotype</i>	Gray Goldenrod, PA Ecotype	264.00
0.10 %	<i>Aster prenanthoides, PA Ecotype</i>	Zigzag Aster, PA Ecotype	432.00
100.00 %		Mix Price/Lb Bulk:	\$37.29

Seeding Rate: Seed at 15 lbs/acre with 30 lbs/acre of a cover crop. For a cover crop use either grain oats (1 Jan to 31 Jul) or grain rye (1 Aug to 31 Dec).

Grasses & Grass-like Species - Herbaceous Perennial; Herbaceous Flowering Species - Herbaceous Perennial; Pollinator Favorites; Solar Sites

Price quotes guaranteed for 30 days.
All prices are FOB Meadville, PA.
Please check our web site at www.ernstseed.com
for current pricing when placing orders.

Exhibit 10

SHADE MANAGEMENT AREA NOTES

AREA IDENTIFIED ON THE SITE PLANS SHEET TITLED ARRAY SITE PLAN (SHEET 4 OF 6) AS "SHADE MANAGEMENT AREA" WILL CONSIST OF TREE REMOVAL ONLY WITH STUMPS TO REMAIN AND NO GRUBBING WILL OCCUR. IN ADDITION, INVASIVE SHRUBS AND VINES IN THE UNDERSTORY WILL BE REMOVED.

- 1) ALL-POINTS TECHNOLOGY CORPORATION, P.C. ("APT") WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO OBSERVE WOODY INVASIVE PLANT REMOVAL AND SUBSEQUENT CONSERVATION SEEDING ACTIVITIES, TO ENSURE THAT THIS PLAN IS IMPLEMENTED PROPERLY. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR WETLAND SCIENTIST AT APT, AT LEAST 5 BUSINESS DAYS PRIOR TO SCHEDULE A PRE-CONSTRUCTION MEETING. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (860) 552-2033 OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.
- 2) TREES TO BE REMOVED ("NON-COMPATIBLE TREES") SHALL INCLUDE ANY MATURE TREE OVER 20' TALL, AND ANY SPECIES OF TREE EXPECTED TO GROW TO A HEIGHT OF GREATER THAN 30'. EXISTING UNDERSTORY VEGETATION LESS THAN 20' TALL, OR NOT EXPECTED TO GROW TO A HEIGHT EXCEEDING 20' SHALL BE RETAINED WHERE FEASIBLE.
- 3) NON-COMPATIBLE TREES REMOVED SHALL BE STUMP CUT WITH THE REMAINING STUMP LEFT IN PLACE TO MINIMIZE GROUND DISTURBANCE. TREE TRUNKS AND SLASH SHALL BE REMOVED FROM THE SHADE MANAGEMENT AREA.
- 1) THE SHADE MANAGEMENT AREA CONSERVATION SEEDING SHALL TAKE PLACE ONCE TREE REMOVAL AND INVASIVE PLANT TREATMENT TASKS HAVE BEEN COMPLETED.
- 2) REFER TO THE INVASIVE PLANT TREATMENT PLAN NOTES FOR CONTROL OF WOODY INVASIVE PLANTS LOCATED WITHIN THE SHADE MANAGEMENT AREA.
- 3) IMMEDIATELY FOLLOWING COMPLETED CLEARING AND CONSERVATION SEEDING ACTIVITIES ALL AREAS OF EXPOSED/DISTURBED SOIL WILL BE STABILIZED WITH A POLLINATOR-FRIENDLY SEED MIX (ERNST CONSERVATION SEEDS NORTHEAST SOLAR POLLINATOR BUFFER MIX – ERNMX-610, OR EQUIVALENT). SEEDED AREAS WILL BE MULCHED WITH CLEAN STRAW OR IF THE SEED IS APPLIED BY HYDROSEEDING A BONDED-FIBER MATRIX TACKIFIER WILL BE ADDED.

INVASIVE PLANT TREATMENT NOTES

INVASIVE WOODY SHRUB AND VINE SPECIES CURRENTLY DOMINATING PORTIONS OF THE UNDERSTORY OF THE SHADE MANAGEMENT AREA, INCLUDING JAPANESE BARBERRY (*BERBERIS THUNBERGIA*), AUTUMN OLIVE (*ELAEAGNUS UMBELLATA*), WINGED EUONYMUS (*EUONYMUS ALATUS*), MULTIFLORA ROSE (*ROSE MULTIFLORA*), AND ASIATIC BITTERSWEET (*CELASTRUS ORBICULTATUS*) SHALL BE REMOVED BY HAND CUTTING DOWN TO THE STEM BASE. CUT STEMS WILL BE TREATED WITH HERBICIDE AS SPECIFIED IN THE FOLLOWING HERBICIDE USE NOTES.

- 1) HERBICIDE APPLICATIONS SHALL BE CONDUCTED BY A STATE-LICENSED INDIVIDUAL.
- 2) THE CONTRACTOR IS RESPONSIBLE FOR SECURING NECESSARY LOCAL, STATE AND/OR FEDERAL PERMITS.
- 3) THE CONTRACTOR SHALL PRODUCE ALL CERTIFICATIONS, LICENSES AND PERMITS PRIOR TO THE START OF WORK.
- 4) THE CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING HERBICIDE USE, APPLICATOR PERMITS AND POSTING REQUIREMENTS.
- 5) REFER TO THE CONNECTICUT INVASIVE PLANT WORKING GROUP INVASIVE PLANT MANAGEMENT GUIDE OR MOST RECENT GUIDANCE FOR FURTHER DETAILS AND GUIDANCE ON INVASIVE PLANT CONTROL AND REMOVAL RECOMMENDATIONS.
([HTTP://WWW.HORT.UCONN.EDU/CIPWG/ART_PUBS/GUIDE/INTRODUCTION.HTM](http://www.hort.uconn.edu/cipwg/art_pubs/guide/introduction.htm)).
- 6) ALL HERBICIDES SHALL BE MIXED WITH A DYE APPROVED BY U.S. EPA FOR USE AS A HERBICIDE ADJUVANTS, SUCH AS TURFMARK@DYE OR EQUIVALENT.
- 7) ONLY NONIONIC SURFACTANTS SHALL BE ADDED TO THE SPECIFIED HERBICIDES.
- 8) INVASIVE WOODY SHRUBS AND VINES SHALL BE TREATED WITH A CUT-STUMP TREATMENT METHOD. SHRUBS AND VINES SHALL BE CUT NEAR THE STUMP LEVEL AND STUMPS SHALL RECEIVE A TRICLOPYR HERBICIDE (8% DILUTED WITH EQUAL PARTS WATER 1:1; BRUSH-B-GON, GARLON, ACCESS, OR APPROVED EQUIVALENT) USING A HAND APPLICATOR METHOD (PAINT BRUSH, SPONGE, OR EQUIVALENT) OR LOW VOLUME HAND SPRAYER WITHIN ONE HOUR OF CUTTING. EFFORTS WILL BE MADE TO PROTECT ADJACENT NATIVE PLANTS DURING HERBICIDE APPLICATIONS.