



May 1, 2024

Ms. Christina M. Costa
Town Planner
Old Saybrook Town Hall
302 Main Street
Old Saybrook, CT 06475

Re: BluSky Carbon
35 Research Parkway
Site Plan Modification
Engineering Review
NLJ # 164-163

Dear Ms. Costa:

As requested, we have reviewed the following information for the subject project:

- Item 1: Form titled "Application for Zoning Commission Review", dated April 26, 2024, including a list of "Abutters within 100-feet of 35 Research Parkway, Old Saybrook".
- Item 2: Form titled "Certificate of Zoning Compliance", dated April 26, 2024.
- Item 3: Document titled "BluSky Statement of Use 35 Research Parkway", no date, prepared by BluSky.
- Item 4: Document titled "BluSky Wetlands Commission, 35 Research Parkway Proposal", no date, prepared by BluSky.
- Item 5: Set of three sketches including "Proposed Cooling Towers" (2 pages) and "Process Flow Diagram".
- Item 6: Drawing titled "Improvement Location Survey, Prepared for BLUSKY CARBON, 175-5 Elm Street, Elm Street Industrial Park, Old Saybrook, Connecticut", dated March 13, 2024, last revised April 25, 2024, prepared by Angus McDonald Gary Sharpe & Associates, Inc.

In addition to reviewing the above noted items, I previously made a site inspection and met with the owners of BluSky during the Inland Wetlands application review process, which was the subject of an April 17, 2024, review letter from our office.

The subject property includes an existing industrial building, paved parking areas, paved access drives, and a storm drainage system that discharges to an adjacent inland wetland area. The business owners are proposing to utilize the existing building for use as a carbon dioxide removal facility through processing of existing organic waste products. Proposed exterior improvements include relocating an existing above ground propane tank and adding a second tank within an existing cleared area; constructing cooling towers and associated water storage tanks within an existing paved area; constructing an exhaust cleaning room

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on a portion of the existing loading dock; reconfiguring a short section of the storm drainage system within an existing paved area; and, some very minor miscellaneous site modifications.

We have the following comments:

1. While the parking calculations on Item 6 above indicate that there are 71 parking available parking spaces on site and only 39 required, we have the following comments in this regard:
 - A. While the calculation for the required number of parking spaces is based strictly on an industrial manufacturing use at one space per 800 square feet, the Statement of Use indicates that approximately half of the 50 total employees will be in office positions with office space requiring more parking per square foot than industrial manufacturing space.
 - B. The site Plan indicates that 11 of the 71 numbered parking spaces (space numbers 23 through 33) are to be eliminated, which should be deducted from the total 71 available parking spaces.
 - C. Parking spaces numbered 36 through 38; 39 and 40; and 45 through 48 do not provide for the required 24-foot-wide back-up aisle.
 - D. Parking spaces 61 through 67 do not have the 24-foot-wide back-up aisle without backing out into Research Parkway.
 - E. Handicap accessible parking spaces 62, 63 and 70 do not meet current ADA or Building Code dimensional requirements. In addition, a safe walkway should be provided from these spaces to the ground level building entrance.
 - F. All standard parking spaces must meet the minimum 9-foot wide by 18-foot-long dimensional requirements specified in the Zoning Regulations. In this regard, parking spaces numbered 1 through 19 do not meet the overall dimension for the required width based on the number of parking spaces shown in each row. In addition, parking space number 1 should not extend out across the curb cut opening unless the island is extended.
2. We would recommend that the portion of the lot that extends out across Research Parkway be deeded to the town.



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3. A note should be added to the drawings indicating that all proposed erosion and sediment control measures shall be installed prior to the start of construction, maintained during construction, and removed after all surfaces have been restored.
4. Please indicate if any outside storage will be required, and if so, where it will be located.
5. The existing site does not conform with the following landscape requirements specified in the Zoning Regulations:
 - A. 25-foot front landscaped area.
 - B. Street trees spaced at 40-foot intervals along Research Parkway.
 - C. 20-foot perimeter buffer.
 - D. Interior parking lot landscaping.
6. As required in Section 51.6.4 of the Zoning Regulations, the plan should include a north arrow and a Commission signature block.
7. I have previously advised the business owners that the subject property is located within an AE Flood Hazard Area with a Base Flood Elevation (BFE) of 9.0 NAVD88. Section 5.3.1 in the Old Saybrook Flood Plain Ordinance requires the lowest floor, including any equipment located on exterior pads, to be elevated to the BFE plus two feet, which at this location will result in a Design Flood Elevation (DFE) of 11.0 NAVD88.

It should be noted that the drawing previously submitted to the Inland Wetlands Commission indicated that the survey was based on NGVD29 datum, which when converted from this datum to NAVD88 datum, would be approximately minus 1-foot. While the drawing submitted to the Zoning Commission references NAVD88 datum with contour elevations adjusted accordingly, it is apparent that not all of the spot elevations have been adjusted. In this regard, the existing loading dock that was identified as being at elevation 10.1, it is still shown to be 10.1. Presumably, the loading dock should be at elevation 9.1 NAVD88, which would require the exhaust cleansing room equipment to be elevated 1.9-feet above the existing loading dock elevation. Care should be taken to make certain that all elevations have been revised to reflect the referenced datum. Since the existing ground surface at the location of the cooling towers has been adjusted from elevation 10.71 NGVD29 to elevation 9.71 NAVD88, the cooling tower equipment will need to be elevated 1.29-feet above the existing ground



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elevation. In both cases, the business owners indicated that complying with these minimum elevation requirements would not create any issues, and that they would comply accordingly.

Should you have any questions, please feel free to contact me.

Sincerely,
Nathan L. Jacobson & Associates, Inc.

Geoffrey L. Jacobson, P.E.

Cc: C. Fortuna
C. Costa
BluSky
Angus McDonald Gary Sharpe & Associates, Inc.