



Jacobson

May 1, 2024

Mrs. Lynette Wacker
Assistant Town Planner/Wetlands Agent
Old Saybrook Town Hall
302 Main Street
Old Saybrook, CT 06475

Re: Proposed Medical Office Building
52 Spencer Plain Road (Route 166)
Provence Land Co., LLC
Inland Wetlands Application
Engineering Review
NLJ # 0232-0036

Dear Mrs. Wacker:

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

- Item 1: Town of Old Saybrook Inland Wetlands & Watercourses Commission "Application to Conduct Regulated Activity", dated April 4, 2024, including a map and list of adjacent properties and a Statewide Inland Wetlands & Watercourses Activity Reporting Form.
- Item 2: Letters from Robert C. Russo, CSS of CLA Engineers to Robert Landino of SPR Oasis, LLC, dated May 11, 2022, including Appendix A Soils Data.
- Item 3: Drawing titled "Alternative Analysis, Prepared for Ortho Saybrook, LLC, 52 Spencer Plain Road (CT Route 166) (Map 25 Lot 27), Old Saybrook, Connecticut", dated April 4, 2024.
- Item 4: Document titled "Drainage Report, 52 Spencer Plain Road (CT Route 166) (Map 25 Lot 21), Old Saybrook, CT 06475", dated April 4, 2024, prepared by Indigo Land Design, LLC.
- Item 5: Set of two drawings titled "Prepared for Ortho Saybrook, LLC, 52 Spencer Plain Road (CT Route 166), (Map 25 Lot 27), Old Saybrook, Connecticut", including "Proposed Drainage Area Map" and "Existing Drainage Area Map", dated April 4, 2024, prepared by Indigo Land Design, LLC.
- Item 6: Set of 14 drawings titled "Proposed Medical Office Building, Prepared for Ortho Saybrook, LLC, 52 Spencer Plain Road (CT Route 166), Old Saybrook, Connecticut", including a Title Sheet and drawing sheets SP-1, LL-1, GUS-1, SES-1, SDC-1, CD-1, CD-2, CD-3, CD-4, CD-5, ES-1, ES-2, and SSD-1, dated April 4, 2024, prepared by Indigo Land Design, LLC.
- Item 7: Set of 2 drawings titled "O&G Lease Building, Old Saybrook Medical, #52 Spencer Plain Rd., Old Saybrook, CT" including drawing sheets A1 and A2, dated February 14, 2024, prepared by Borghesi Building & Engineering Co., Inc.

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Item 8: Catalog cuts from U.S. Lithonia Lighting, including "LDN4 Static White" fixtures, and "SSS" steel poles.

Item 9: A photometric drawing titled "52 Spencer Plains Road – Site Lighting – Old Saybrook – Revision 2.AGI", no date, preparer unknown.

As you are aware, we previously reviewed an application for the development of this property by a different applicant for a grocery store and a fast-food restaurant that was approved by the Commission in February 2023. While an application was subsequently submitted to the Zoning Commission, that application was withdrawn and not resubmitted.

With regard to the subject inland wetland application, the project includes significant activities located within, and directly adjacent to, two separate inland wetland areas located in the western portion of the property including construction of retaining walls, placement of fill, and use of the southwestern wetland area for stormwater detention. In addition, regulated activities located within the 100-foot upland review area include construction of an access road, parking areas, and exterior lighting.

While no activities are proposed within the much larger wetland area located in the eastern portion of the site that extends into adjacent properties, regulated activities within the upland review area include the placement of fill, a gravel access drive, a small corner of the building, a stormwater management basin, and one point source stormwater discharge.

Regulated activities proposed within the 100-foot upland review area of an intermittent watercourse located along the northern portion of the property within the adjacent I-95 right-of-way include the placement of fill, parking area, and exterior lighting.

We have the following comments:

1. In Section 7.5F of the Inland Wetlands and Watercourses Regulations, an alternatives analysis which is to be diagrammed on a drawing, is required to be submitted to identify an "Alternative which would cause less or no environmental impact to wetlands and watercourses..." Item 3 above provides a comparative analysis between the plan approved by the commission last year, now the alternative, and the current proposed plan. You may recall that the plan approved last year was the subject of considerable discussion and was reduced in scope and associated impacts from what was initially



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proposed by the former applicant. The current plan, which is for a different use, results in a further reduction in disturbance within the 100-foot upland review area, the most noteworthy being the area of clearing and impervious surface area. As such, the comparative analysis would appear to satisfy the alternatives requirement.

2. Currently, stormwater runoff pools in the southwestern inland wetland area until it reaches elevation 24 after which it overflows into the northwestern inland wetland area and eventually out to the northern intermittent watercourse. Due to the placement of fill for the access drive, this overflow will no longer occur. Under proposed conditions, while there are no direct stormwater discharges into the southwestern inland wetland area, and no impervious surface area drains to it, a high-level overflow structure is provided that would allow water to pond in this area up to elevation 26.2. The stormwater analysis models the southwestern inland wetland area as a detention pond with the water surface elevation ranging from 24.34 for the 2-year frequency event to 25.36 for the 100-year frequency event. Section 7.6 of the regulation's states that "no detention or retention ponds shall be allowed in wetlands if alternative sites are available. If there are no alternative sites, and no alternative solution to stormwater management exists, detention or retention ponds in a wetland may be considered....." The Commission's wetland consultant should determine if this additional depth of ponding will adversely impact the southwestern inland wetland area. Given that the applicant's wetland consultant reported the soil type in this area to be very poorly drained, we would also question how this area will drain between successive storm events so that sufficient volume will be available to attenuate peak discharge rates since there is no low level outlet.
3. While a "Landscape Plan & Lighting Plan" (drawing sheet LL-1) was submitted, no specific landscaping is shown and a note on the drawing states "Landscaping to be determined by the Landscape Architect." This plan should be submitted so that the Commission's wetland consultant can review any proposed or recommended transitional plantings and we can ensure that no woody vegetation is proposed on, or within close proximity of, the stormwater management basin berm.
4. We have the following comments regarding the Drainage Report identified as Item 4 above:
 - A. For the Time of Concentration calculation for existing watershed B (ShedB/DP2), the flow length should be 578-feet instead of 286-feet, and the watershed slope 0.5% instead of 2.0%. These revisions will result in lower predevelopment peak discharge rates.



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- B. With regard to The time of Concentration calculation for proposed watershed B (Shed B), while the area is only 21% of the area of existing watershed B (Shed B/DP-1) and the length of the flow path only 33% of the length of the flow path for existing watershed B, it is not logical that the time of concentration for proposed watershed B would be 78% or 25 minutes longer than that of existing watershed B. In addition to correcting the watershed slope for proposed watershed B (overall elevation 27.5 to elevation 23.7) this calculation needs to be reconciled to reflect some of the other flow path similarities.
 - C. The proposed outlet control structure #1 notation on drawing sheet GUS-1 identifies a 15-inch diameter outlet pipe, which is identified elsewhere on the drawings and in the stormwater model as a 12-nch diameter pipe.
 - D. While peak discharge rates after development are less than those prior to development, the discharge volumes are slightly more. We recognize that the infiltration rate of the underlying soil is quite low, and that review by the Commissions wetland consultant of the prior application for this property recommended that discharge volumes not be reduced so that the eastern wetlands area would not be adversely impacted. However, given the flooding problems in the Chalker Beach neighborhood, the discharge volumes should be equal to or less than the predevelopment conditions if at all possible.
 - E. With regard to the Water Quality Volume (WQV) calculation, based on the stage/storage table in the Drainage Report we compute the WQV to be 6,502 cubic feet as compared to the required volume of 7,115 cubic feet and the reported volume of 7,538 cubic feet.
 - F. The Sheet Flow component for watershed D should not exceed 150-feet.
5. Based on the criteria in the Connecticut Stormwater Quality Manual we would recommend that the sediment forebay in the stormwater management basin be more confined and deeper than the proposed basin bottom to minimize the resuspension of sediment. In this regard, we would recommend that the proposed 24 and 22 contours be pulled back further to the southwest end of the basin along with the outlet pipe from CB #6 and the roof drain; increase the depth of the sediment forebay to elevation 18 while maintaining a minimum 2:1 length to width ration; providing a minimum



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storage volume below the basin bottom equal to at least 10-percent of the WQV; and, adjusting the location of the rip rap berm along the east end of the sediment forebay (see attached sketch for general illustration purposes only).

6. With regard to proposed exterior lighting, it should be noted that the Zoning Regulations require Dark Zone illuminance density (0.01 fc max.) within 100-feet of an inland wetland or watercourse. Based on Item 9 above, this requirement is exceeded within the two western inland wetland areas as well as within 100-feet of these inland wetlands. This requirement is also exceeded within 100-feet of the eastern inland wetlands and the northern intermittent watercourse.

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
W. Claffey
C. Costa
Indigo Land Design

