



A C O R N

ENGINEERING, INC.

Memorandum

To: Lee Jay Feldman
Southern Maine Planning and Development Commission/
Interim Kennebunkport Planner
110 Main Street, Suite 1400
Saco, Maine 04072

From: Aubrey L. Strause, PE and Craig Burgess, PE (Acorn Engineering, Inc.)
Date: December 4, 2023
Subject: Preliminary Subdivision Application – Wildes District Road Subdivision
Beachwood Development Fund, LP
Tax Map 9, Lot 10-23
Kennebunkport, Maine 04046

Overview:

Acorn Engineering, Inc. (Acorn), was retained by the Town of Kennebunkport to review the proposed Preliminary Subdivision Application for Wildes District Road Subdivision to be located on the south side of Wildes District Road, and within the Village Residential District. The applicant is Michael D. Prendergast, and the application was prepared by Terradyn Consultants LLC (Terradyn). The Professional Engineer of Record for the design is Michael E. Tadema-Wielandt, PE 11567.

The project proposes to construct a three-lot single-family residential subdivision to be served by a new 588-foot private roadway. Other site improvements will consist of utility extensions from Wildes District Road, stormwater infrastructure, and lot grading. We understand the applicant intends to offer the lots for sale to the general public.

The site is currently a vacant, wooded 4.1-acre lot along the south side of Wildes District Road. Site topography generally slopes to a pond and wetland complex to the west. A wetland delineation was performed by Longview Partners, LLC (Longview) on October 3, 2022.

<p>As of the date of this Memo, Longview Partners is preparing a natural resources report. Acorn has not reviewed this document.</p>

Acorn understands that a potentially significant vernal pool was identified by Longview during the initial delineation in October 2022, but that no vernal pool evaluation was performed in the spring of 2023. Proposed development would impact approximately 1,527 SF of pond and forested wetland.

The applicant proposes the installation of cross culverts and a closed drainage storm system to manage runoff from the roadway construction. Best management practices (BMPs) for water quality and quantity control are not proposed as part of the project.

Acorn Engineering's review focused on the proposed application, plan set, stormwater management plan, and erosion and sedimentation control measures, and also includes comments on the natural resources to the extent that they impact constructability of the proposed project.

Our review included the following, dated October 2, 2023 and prepared by Terradyn (except where noted):

- Preliminary Subdivision Application, including:
 - Attachment 1: Application for Subdivision – Kennebunk Planning Board
 - Attachment 6: Stormwater Management
 - Attachment 7: Wetland and Vernal Pool Delineation

The wetland delineation plan included in Attachment 7 states that it is “not for permitting”; it is not acceptable for the purpose of this application.

Terradyn reports that the wetland report is being prepared but has not been provided to Acorn as of the date of this Memo.

- Plan Set. Plans are dated October 2, 2023 and prepared by Terradyn. Sheet numbers and names of plans reviewed by Acorn are as follows:

C-1.0	COVER SHEET
1	TOPOGRAPHIC SURVEY PLAN
C-2.0	SUBDIVISION PLAN
C-3.0	PLAN & PROFILE STA. 0+00 TO STA. 5+88
C-4.0	EROSION AND SEDIMENT CONTROL PLAN
C-5.0	EROSION CONTROL NOTES AND DETAILS
C-5.1	SITE AND UTILITY DETAILS
C-5.2	DRAINAGE AND UTILITY DETAILS

- Revised Subdivision Plan (Sheet C-2.0), dated 11/27/23, which shows proposed building envelopes.
- Memo, dated 11/29/23 and prepared by Lee Jay Feldman, Director of Planning for the Southern Maine Planning & Development Commission, who is serving as interim planner for the Town of Kennebunkport.
- Recording of the 11/15/23 Planning Board meeting at which the project was presented¹.
- Attendance at the 11/29/23 Planning Board Site Walk.

COMMENTS

The following sections represent Acorn's comments on this submittal.

Jurisdiction

1. §240-6.14² (“Road construction, filling and grading”): this section of the Town's Land Use Zoning Ordinance states that construction of a road that will serve more than two residential units requires site plan review (under Article 10). This project proposes a road that will serve three residential units. The applicant has submitted a Preliminary Application for Subdivision. The Town should verify whether a Site Plan Application is also required.

¹ Planning Board Meeting recording: https://townhallstreams.com/stream.php?location_id=57&id=56243

² §240-6.14: <https://ecode360.com/33970088>



2. The Subdivision Application asks the applicant to state whether the proposed project is located within 250 feet of the high-water mark of a “...pond, river, or saltwater body”. This applicant does not answer this question, but the proposed project is located immediately adjacent to a pond as defined in the Town’s Land Use Ordinance. The pond has the potential to be a Wetland of Special Significance (WOSS) as defined by Maine DEP in Rule Chapter 310 (“Wetlands and Waterbodies Protection Rules”)³. The application form should be revised for accuracy. This Memo includes additional questions about potential impact of this pond and whether it is considered a WOSS, which could have substantial impact on the proposed design.
3. At the November 15, 2023 Planning Board meeting, the engineer acknowledged that the project will require a permit from the United States Army Corps of Engineers (USACE). List the USACE permit number in the “Permits” box on the cover sheet, and provide a copy of the USACE permit.

General Comments

4. The provided purchase and sale agreement (P&S) (between Beachwood Development Fund, LLC and the property owner, Michael D. Prendergast) expired on August 17, 2022. Please provide an updated P&S Agreement or otherwise demonstrate that Beachwood Development Fund, LP has right, title, or interest to submit the application on the property owned by Mr. Prendergast.
5. §415-7.2.D(6):
 - a. The proposed Inspection and Maintenance Manual (included in the Stormwater Management Report in Attachment 6) states that either the Owner or a Homeowners Association (HOA) will be the party responsible for inspection and maintenance of the stormwater management system. Please provide sample HOA Bylaws and a sample Declaration of Covenants, Conditions, and Restrictions (“Declaration”) that together define the process in which responsibility for stormwater system maintenance is conveyed from one entity to the other. Final approval will require proof of formation of the HOA and execution of HOA Bylaws and Declaration.
 - b. The application proposes a private road to serve the three proposed residential lots. Please provide a sample roadway maintenance agreement that describes what entity will be responsible for maintenance of the private road. Final approval will require an executed copy of a roadway maintenance agreement.
6. §415-7.2.D(10): A waiver is being requested for the preparation of a high-intensity soil survey. Acorn concurs that this is appropriate for the reasons stated in the application.
7. §415-7.2.D(13): Acorn concurs that a hydrogeologic assessment is not required given the subdivision will not trigger any of three criteria listed in this section.
8. §415-7.2.D(14): Plans shall be revised to include the limit of tree clearing and the location of any existing large specimen trees (21-inches or larger).

³ Maine DEP Rule Chapter 310: https://www.maine.gov/dep/land/nrpa/310_booklet.pdf



9. §415-7.2.D(16): Lots will be offered for sale to the general public, not developed by the applicant. Acorn concurs that the building envelopes shown on plans are not required to include locations of dwellings, driveways, and lawns/ gardens. The plans show land on each lot to be graded for the creation of buildable area. Acorn observes that if the feature crossing the parcel is considered to be a stream, a 75-foot riparian buffer setback would significantly reduce the area on Lots 2 and 3 that could be graded (and/or would require coverage under a Natural Resources Protection Act [NRPA] Permit by Rule [PBR]), and may reduce the lot size to less than the VR district minimum (40,000 SF) and may result in buildable area too small to be functional. We recommend that this be revisited once the nature of this feature (per other comments in this Memo) is resolved.
10. §415-7.2.D(28) and §415-11.8:
 - a. Attachment 10 of the application includes correspondence with the Maine Natural Areas Program. Based on Maine Department of Inland Fisheries and Wildlife (MDIFW's) "Beginning with Habitat" map, we recommended that correspondence with this agency be included for the identification of high or moderate value wildlife habitat.
 - b. A vernal pool is depicted on Lot 3 of the subdivision. The Subdivision Application states that since the potential significant vernal pool was not studied in 2023 during the official identification period established by Maine DEP and MDIFW, it is being considered a significant vernal pool for the purposes of this application. The applicant shall show the required 250-foot natural resource buffer around this vernal pool on the Revised Subdivision Plan (Sheet C-20) and provide calculations that demonstrate a minimum 75% of the buffer area will be protected, consistent with Maine DEP Rule Chapter 335⁴ ("Significant Wildlife Habitat"). Acorn defers to the Town about portions of the three lots being deed-restricted for the protection of the natural resource buffer extending 250-feet around the significant vernal pool.
11. §415-7.2.D(29): Correspondence with the Maine Historic Preservation Commission (MHPC) shall be provided, and a review of the National Register of Historic Places be completed, to satisfy this section of the Subdivision Regulations.

Stormwater Management Comments

12. The narrative shall identify the drainage watershed in which the proposed project is located.

Water Quality

13. The narrative includes a section on Stormwater Quantity Control, but does not address Stormwater Quality Control. Town Subdivision Regulations include a Stormwater Management requirement (§415-11.15.B1⁵) addresses water quality as follows:

- (i) Subdivisions. Stormwater runoff in subdivisions must be treated by the use of best management practices equivalent to those described in the Stormwater Management for Maine: Best Management Practices, published by the Maine Department of Environmental Protection, 1995 (or most recent edition), to achieve, by design, 40% reduction in total suspended solids.

⁴ Maine DEP Rule Chapter 223: <http://www.maine.gov/sos/cec/rules/06/096/096c335.doc>

⁵ Stormwater Management: <https://ecode360.com/33971757>



The most recent version of the Maine DEP Stormwater Management BMP Design Manual is dated May 2016 and no longer uses reduction in total suspended solids (TSS) as the water quality requirement.

The application does not address water quality, and no BMPs are proposed to treat runoff from the proposed impervious and developed areas. Please revise the application to provide BMPs for stormwater treatment, include calculations for each BMP, show locations of each BMP on the proposed lots, revise the Inspection and Maintenance Manual (included in the Stormwater Management Report in Attachment 6) to identify the post-construction inspection and maintenance requirements for each proposed BMP, and clarify what party will be responsible for maintaining each BMP,

Water Quantity

14. Minor recommended changes to the stormwater analysis include:

- a. Appendix 1: Re-evaluate TC path for Subcatchment 1. Acorn believes there may be a longer path with a longer stretch of sheet flow from the northeasterly corner.
- b. Appendix 2: Re-evaluate the drainage divide between Subcatchments 10 and 11. The current drainage divide is between the 78 and 79 contours, whereas the divide appears to be closer to the middle of Lot 2.
- c. Appendix 3: The TC path for Subcatchment 2 is longer in the post-development condition than existing.
- d. Appendix 4: The inlet invert of Reach 22 has a higher elevation than the outlet of the receiving culvert (C22).
- e. Appendix 4: The size of the pipe outlet from C22 should be 18-inches as depicted on the plans.
- f. Appendix 4: The size of the pipe outlets from C21 and C22 should be 18-inches as depicted on the plans.

Comments on Natural Resources

15. A large pond is located partially on the subject property (Tax Map 9, Lot 10-23) and partially on the adjacent property (Tax Map 9, Lot 10-22-A), which is owned by the same person as the subject property. Acorn estimates that the pond has an overall water surface area of approximately 36,000 SF based upon the water surface line depicted on Sheet C-2.0. This is greater than the 20,000 square feet threshold that Maine DEP considers a freshwater Wetland of Special Significance (WOSS) per Rule Chapter 310.4.A(5)⁶, which is inset below.

(5) Aquatic vegetation, emergent marsh vegetation or open water. The freshwater wetland contains under normal circumstances at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless the 20,000 or more square foot area is the result of an artificial ponds or impoundment.

During the 11/15/23 Planning Board meeting, the engineer stated that the pond was determined to be “man-made”. The application should include information about how this determination was made, by whom, and provide documentation demonstrating that the Maine DEP was consulted and concurred with this determination.

⁶ Maine DEP Rule Chapter 310: https://www.maine.gov/dep/land/nrpa/310_booklet.pdf



If it cannot be demonstrated that the pond is man-made, it would be considered a wetland of special significance per Chapter 310.4(5) language and could have substantial impact on the proposed design.

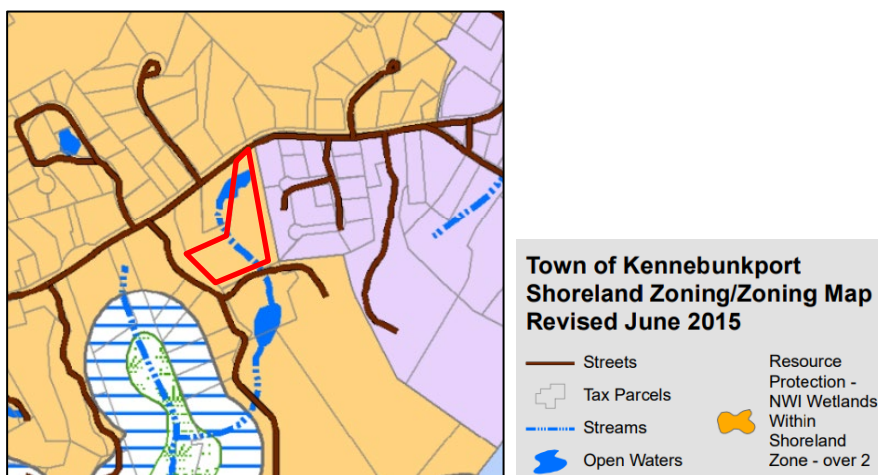
16. The Existing Conditions Plan (Sheet 1 of 1) shows a feature labeled “ditch” that extends from the outlet of the pond on Lot 10-22-A and crosses Lot 10-23.

This feature is labeled as a “30-foot-wide drainage easement” on Revised Sheet C-2.0 (11/27/23) but no drainage easement is mentioned in the recorded deed (York County Registry of Deeds, Book 16177 Page 988). Within the drainage easement shown on Revised Sheet C-2.0, the feature is shown as wetlands (type not specified).

The USGS Quadrangle⁷ for this area (image inset below, with the subject parcel outlined in red), the feature is shown as a “blue line” which is an indicator of a potential stream.



The Town’s Zoning and Shoreland Zoning Map⁸ (image inset below, with the subject parcel outlined in red) also shows this as a stream.



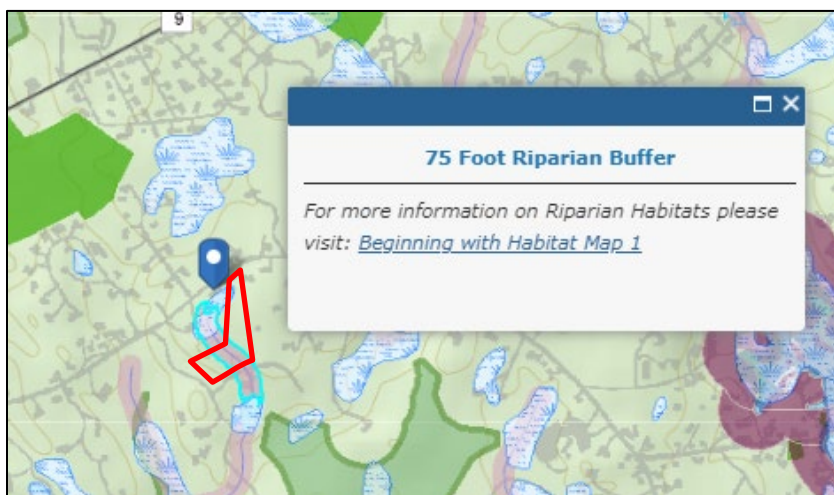
⁷ USGS Topo Map Viewer: <https://ngmdb.usgs.gov/topoview/viewer/#>

⁸ Town Zoning and Shoreland Zoning Map (2015):

www.kennebunkportme.gov/sites/g/files/vyhlif3306/f/uploads/kennebunkport_shoreland_zoning_map_june_2015_1.pdf



The Maine Department of Inland Fisheries and Wildlife (MDIFW) also considers this feature to be a stream in its Beginning with Habitat online map viewer⁹ (image inset below, with the subject parcel outlined in red) and requests maintaining a 75-foot riparian habitat buffer around it.



The Natural Resource Protection Act (NRPA) Identification Guide for Rivers, Streams and Brooks¹⁰ lists five characteristics of a stream. To be considered a stream, the feature must have a defined channel and two of the five characteristics; this feature does have a defined channel and appears to have at least two of the five characteristics

The application shall include information about who performed the field determination of the feature, address each of the NRPA Identification characteristics, and provide documentation demonstrating that the Maine DEP was consulted and concurred. Otherwise

17. Revised Sheet C-2.0 depicts a 30-foot wide drainage easement on Lot 10-23. A copy of the draft drainage easement with metes and bounds will be required with the Final Subdivision application.
18. Revised Subdivision Plan Sheet C-2.0 shows the location and area of Wetland impacts #1, #2, and #3, which total 1,507 SF of impacts.
 - a. Lot 1 includes additional delineated wetland within the footprint of the building envelope shown. In reality, this wetland will likely be impacted during development of this lot, so additional area should be defined as Wetland Impact #4.
 - b. The project narrative states a total of 1,527 SF of wetland impacts. Please clarify.
19. Revise note #12 on the Existing Conditions Plan (Sheet 1 of 1) and Revised Sheet C-2.0 to include the names of the professionals who performed each of the investigations listed, and the license number of each professional.

⁹ MDIFW Beginning with Habitat map: <https://webapps2.cgis-solutions.com/beginningwithhabitat/mapviewer/>

¹⁰ NRPA ID Guide: <https://www.maine.gov/dep/land/nrpa/documents/nrpa-stream-id.pdf>



20. Construction of the pipe outlets adjacent to (or within) wetlands — for example, at the catch basin outlet at Station 2+75, which is 15 feet from the wetland — require coverage under Section 7 of a NRPA Permit by Rule (PBR). A NRPA PBR application does not appear to have been submitted as of the date of this Memo¹¹. Provide a copy of the NRPA PBR application, once submitted, and list the PBR number in the Permits box on the Cover Page.
21. The wetland delineation map included in Attachment 7 does not identify the type(s) of freshwater wetland delineated. Provide a copy of the natural resources report prepared by Longview Partners. The report should include information on the pond (a potential WOSS) including documentation about whether it is man-made, wetland types, vernal pool forms (if available), and all field determinations (including evaluation of the stream). The wetland report should describe the features of the wetland drainage way.
22. Wetland disturbance will require a permit from the US Army Corps of Engineers (USACE). Provide a copy of the application and approval letter, if available.

Plan Set Comments

Acorn recommends updates to the plan set as follows:

23. Sheet C-1.0 (Cover Sheet)

- a. General Note #1 states that that project is subject to a Maine DEP permit. Please clarify what permit.
- b. Please list any and all Maine DEP permit numbers in the Permits box.
- c. Please list the USACE permit number (for wetland disturbance) and Maine DEP permits in the Permits box.
- d. Update Sheet Index (and numbers) based on comments below.
- a. Update the location map to meet the standards of §415-7.2.B:

24. Sheet C-2.0 (Revised Subdivision Plan)

- a. Per §415-12.2, where the subdivision streets are to remain private roads, the following words shall appear on the recorded plan: "*All roads in this subdivision shall remain private roads to be maintained by the developer or the lot owners.*" Please add this note to Sheet C-2.0.
- b. Visually represent (and state numerically) the area on each lot that shall be deed-restricted to protect the significant vernal pool critical terrestrial habitat.
- c. Subdivision Regulation §415-11.8.B(7) requires that at least 1/3 of the total area of required open space will be "...*upland areas or areas unsuitable for active or passive recreation*". Open space calculations on Sheet C-2.0 include 27,248 SF of pond area as open space but . The pond is not upland area and not accessible for recreational needs. Revise the open space calculation on this sheet to list other proposed open space and show that at least 1/3 of the proposed open area is upland and is suitable per this section of the Subdivision Regulations .

25. Sheet C-3.0 (Plan & Profile)

- a. Depict sight distances from entry along Wildes District Road.
- b. Show new stop sign for private road.
- c. Label curb radii at entry and hammerhead.

¹¹ Maine DEP Land Permit Application database: www.maine.gov/dep/gis/datamaps/LAWB_Permits/index.html



- d. Confirm material and location of the new curb within public right-of-way with Public Works Director, and provide documentation of this consensus.
- e. Show required trenching for utility installation within Wildes District Road.
- f. Include spot grades on hammerhead to identify slopes and drainage direction.
- g. A waiver is being requested for slopes steeper than 3:1 (H:V) adjacent to wetland areas. The entire easterly edge of roadway is graded with 2:1 (H:V) sideslopes. Where possible, slopes should be 3:1 (H:V) per §250-6.14(D).
- h. The hammerhead turnaround is designed in general conformance with §250-6.14(F). The proposed project description in the cover letters notes that a streetlight will be located near the hammerhead. The plan shall be revised to depict the streetlight outside the limits of the obstruction free zone.
- i. Show the outlet riprap apron for SD-3 per the pipe outlet protection detail and the associated easement on adjacent property, if required.

26. Sheet C-4.0 (Erosion & Sediment Control Notes and Details): This sheet is included as Sheet C-5.0 and can be deleted without impacting other sheet numbers.

27. Sheet C-5.0 (Erosion and Sediment Control Notes and Details)

- a. Show storm drain inlet protection at proposed catch basins.
- b. Provide detail for storm drain inlet protection.

28. Sheet C-5.1

- a. Include note on the driveway culvert detail for minimum pipe size of 15-inches for a driveway cross culvert (per §415-12.5.C).
- b. The typical water service connection detail should remove reference to a sidewalk.
- c. Provide detail for the slipform curb.
- d. Update the Tee & Bend Detail to include a two-inch diameter water service.

29. Sheet C-5.2

- a. Provide water and sewer pipe materials in the typical trench detail.

Acorn would be pleased to perform a peer review of a revised application package.

Please call either of us at (207) 775-2655 with any questions about this review.

Sincerely,



Aubrey L. Strause, P.E.
Municipal Services Coordinator
Acorn Engineering, Inc.



Craig A. Burgess, P.E.
Project Manager
Acorn Engineering, Inc.

cc: William H. Savage, P.E. (Principal, Acorn Engineering)

