


**MEMORANDUM**

TO: North Castle Planning Board

CC: North Castle Conservation Board  
Adam Kaufman, AICP  
Richard Regan, P.E.  
Geraldine Tortorella, Esq.  
45 Hurlingham, LLC

FROM: Joseph M. Cermele, P.E., CFM   
Kellard Sessions Consulting  
Consulting Town Engineers

DATE: February 17, 2021

RE: 45 Hurlingham, LLC  
45 Hurlingham Drive  
Section 102.04, Block 1, Lot 26

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As requested, Kellard Sessions Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The plan proposes the development of the existing vacant parcel with a single-family residence at the western side (rear) of the property and a Caretaker's Cottage on the eastern side of the property. Additional improvements include a tennis court, patios and other hardscape, a dock at the property's waterfront on Converse Lake, associated utilities, including septic and well improvements, and stormwater management improvements. It is noted that approvals for the construction of a residence and associated improvements were granted to a prior owner by the Town in 1991. After the driveway access was graded, septic system and well were installed and other portions of the property were graded, work stopped, and no other improvements were constructed. The property is located in the One-Family Residence, R-2A, Zoning District and ±10.309 acres in size, located primarily in the Town of North Castle with a small segment (±0.28 acre) located in Greenwich, Connecticut.

Our previous comments are provided below for reference with our most current in **bold**.

**GENERAL COMMENTS**

1. As acknowledged by the applicant, the proposed Caretaker's Quarters is a permitted accessory use to the principal residential use, provided the dwelling is "located so that the site upon which it is situated, could, in the opinion of —the Planning Board, be subdivided in the future from the

remainder of the parcel in such a way as to create a separate conforming lot”. As such, the applicant has prepared a Phantom Subdivision Plan titled “Development Plan Showing Possible Subdivision for Caretaker’s Quarters” for the Board’s consideration. With regard to this plan, we offer the following comment:

- a. The Subdivision Plan shall include a Bulk Zoning Conformance Table for both lots, as well as illustrate and dimension all required minimum yard setbacks;

**The minimum yard setbacks shall be illustrated and dimensioned, as requested.**

- b. The applicant will be required to provide a Steep Slope Map, illustrating the areas of all Town-regulated steep slopes, in addition to all local and State regulated wetland and wetland buffer areas, all as defined by Town Code, to support calculations for Net Lot Area, which is the Gross Lot Area minus 75% of the area of any wetlands, waterbodies, and watercourses, excluding any adjacent areas, and 50% of the area of any steep slopes;

**As previously requested, the subdivision map illustrates areas of steep slope and wetland/wetland buffers. These areas shall be quantified on the plan and the Bulk Zoning Tables shall be revised to indicate the required deductions used to calculate Net Lot Area.**

- c. The Subdivision Plan shall illustrate the Minimum Contiguous Buildable Area, that area of the lot excluding wetlands, water bodies, watercourses and adjacent areas, as defined by Section 355-26F (2) of the Town Code;

**The Minimum Contiguous Buildable Area has been illustrated.**

- d. We note that the expansion area for the proposed septic system serving Lot 2 extends onto Lot 1, as shown. The lot configuration should be revised, as needed, to avoid this condition;

**The lot configuration has been modified to accommodate the above, as requested.**

- e. The Subdivision Plan shall illustrate the location of the private drilled wells serving each lot.

**The existing and proposed drilled wells for each lot have been illustrated, as requested.**

2. The architectural elevations shall illustrate the Maximum Exterior Wall Height, as defined by Section 355-26D of the Town Code. Specifically, the maximum permitted vertical differential between the lowest grade elevation at any point along the exterior wall of the residence and the point on the roof from, which the building's height is measured, shall not exceed 38 feet in the One-Family, R-2A, Zoning District.

**Average Grade and Maximum Wall Height Calculations should be reviewed and verified by the Building Inspector for compliance.**

3. The project site is partially located within the boundaries of the FEMA 100-year Floodplain, Zone A. The site plan shall clearly illustrate the boundaries of the floodplain and include references to the effective FEMA FIRM Maps. The plan shall clarify whether any improvements within the floodplain will require mitigation. It appears that the only improvements proposed is the construction of a floating dock and an at-grade walking path. As such, we would expect that there be no adverse impacts to the floodplain. Regardless of whether or not development in the floodplain is proposed, the applicant will be required to obtain a Floodplain Development Permit.

**The plan has been revised to illustrate the limits of the floodplain boundary and effective map data. While the improvements associated with the footpath to the proposed dock will not require floodplain mitigation, the applicant has acknowledged the need to obtain a Floodplain Development Permit prior to issuance of a Building Permit.**

4. The property includes a portion of Converse Lake, a New York State Department of Environmental Conservation (NYSDEC), Class AA-S waterbody. The applicant will be required to provide confirmation from the NYSDEC as to whether an Article 15, Protection of Waters Permit will be required for the proposed dock and/or walking trail.

**The applicant has received confirmation from the NYSDEC that an Article 15, Protection of Waters Permit will not be required.**

5. The property is partially located within the NYSDEC Checkzone for Freshwater Wetland K-54. The applicant will be required to provide confirmation from the NYSDEC as to whether or not a Freshwater Wetland Permit will be required. The applicant shall provide a Wetland Validation Map signed by the NYSDEC.

**The applicant has received confirmation from the NYSDEC that a Freshwater Wetland Permit will not be required. As such, the NYSDEC will not need to provide a Wetland Validation Map.**

6. Converse Lake is a locally-regulated wetland, as defined by Chapter 340, Wetlands and Watercourse Protection of the Town Code. The applicant shall establish the local wetland boundary in the field with sequentially numbered fluorescent flags for verification by the Town Wetland Consultant. The plan proposes the installation of a floating dock and walking path within the regulated wetland/wetland buffer. The applicant shall provide a mitigation plan demonstrating mitigation at a ratio of 2:1 for unavoidable disturbances. The Planning Board should refer the plan to the Conservation Board for review.

**The applicant shall coordinate directly with the Town Wetland Consultant in regard to verification of the existing wetland boundary. This office will review the proposed wetland mitigation plan in conjunction with the Conservation Board as part of the referral by the Planning Board.**

7. The site plan shall include dimensions for the distance the proposed driveway gate will be set back from Hurlingham Drive, as well as dimensions for driveway width, proposed passing areas, and the driveway courtyard. The plan should be referred to the Bedford-Banksville Fire Department for review of adequate emergency access.

**The plan includes dimensions for the proposed driveway gate setback and driveway width that are acceptable. The plan should also include dimensions for the driveway courtyard at each garage. Additionally, the previously proposed passing areas have been removed from the current layout. We would recommend that given the length of the drive that the applicant consider providing these areas. The applicant should provide an update on any communication form the Bedford-Banksville Fire Department.**

8. The site plan shall illustrate and dimension minimum required yard setbacks, as indicated in the Bulk Zoning Compliance Table.

**The requested setbacks have been illustrated.**

9. The applicant will be required to obtain approval from the Westchester County Health Department (WCHD) for the proposed subdivision, as well as for the proposed on-site wastewater treatment system and private drilled wells. Copies of these approvals shall be provided to the Town upon receipt.

**Comment acknowledged by the applicant.**

10. The plans indicate a prior approval from the WCHD for a six (6) bedroom septic system. We note that the proposed plan includes a total of nine (9) proposed bedrooms (six (6) bedroom residence with a seventh bedroom designated as a safe room and the two (2) bedroom Caretaker's Quarters). As indicated above, the applicant shall provide copies of approvals for the septic system by the WCHD.

**The applicant has received confirmation from the WCHD that the proposed residence will be viewed as a six (6) bedroom residence. The septic system approvals for the both the main residence and caretaker's cottage are pending.**

11. The applicant should verify that the required minimum setbacks for the proposed well serving the Caretaker's Quarters are maintained in accordance with WCHD regulations. It appears that Infiltration Chamber #6 is within the minimum required 100-foot setback. The plan shall be revised as needed.

**The applicant has modified the infiltration system and as a result, renumbered the above system as Infiltration Chamber #5. The location of the chambers or well has not been modified. We continue to recommend that the applicant verify compliance with the WCHD. It is our understanding that infiltration chambers with tributary drainage areas including paved surfaces must be setback a minimum of 100 feet from a drilled well, not 50 feet, as proposed.**

12. The plan shall include a driveway profile with vertical geometry, as needed, to demonstrate compliance with Section 355-59 of the Town Code.

**The plans have been revised to include a driveway profile demonstrating compliance with Town Code.**

13. The site plan should clarify whether or not outdoor lighting is proposed for the tennis court and whether any fencing will be proposed at its perimeter. Provide details.

**The plans include a note indicating that no outdoor lighting for the tennis court is proposed. The requested fence detail shall be provided as the plan progresses.**

14. The Site Plan Application indicates a balanced site with regard to earthwork, requiring a total of approximately 10,650 yards of cut and fill, with only 50 c.y. of material to be exported. The applicant should provide the cut and fill calculation and supporting plan for review.

**The requested cut and fill analysis has been provided. As a result of the relocation of the main house, the net fill required for the project has increased to approximately 700 c.y. The Planning Board should discuss whether the amount of fill and associated potential impacts due to delivery is appropriate for the development.**

15. The plan proposes removal of 29 trees, 13 of which are defined as Significant Trees by the Town Code. The Planning Board should discuss whether the tree removal is appropriate for the development, as proposed, and whether the landscape plan is adequate.

**The applicant has provided a revised Landscape Plan for the Planning Board's consideration.**

16. The plan proposes metal edging for the length of the main driveway, however, details for block curb are provided. This should be clarified.

**The plans now illustrate both metal edging and block curbs and include details for both.**

17. The plan proposes retaining walls with a maximum height of 14 feet. The plan shall clearly note that prior to the issuance of a Building Permit, all retaining walls greater than or equal to four (4) feet in height shall be designed by a NYS Licensed Professional Engineer and demonstrate that adequate factors of safety are provided for sliding, bearing pressure, and overturning. The plan shall also clearly state that prior to issuance of a Certificate of Occupancy, the Design Professional shall certify that the construction of the retaining walls are in conformance to the approved plans.

**The requested notes have been added to the plan.**

18. The retaining wall detail shall be revised to specify any drainage materials, wall drains, weep holes, backfill and compaction requirements and illustrate the point of discharge for all drainage. Any protection measures, such as fences, to be installed at the top of any retaining wall shall be illustrated on the plan and included in the details.

**As previously requested, the plan shall illustrate the location, limits and type of fence or rail that may be installed above the walls. Provide details.**

19. The plan proposes multiple utility crossings for the septic system and stormwater conveyances to be installed through the proposed retaining walls. Details for the utility crossings, demonstrating adequate protection, shall be included on the plans.

**The requested detail has been provided.**

20. The plan proposes multiple infiltration systems throughout the site to provide stormwater mitigation through the 100-year storm event. This office witnessed soil deep and percolation tests, performed by the Design Professional demonstrating the presence of suitable soils for infiltration. We will reserve detailed comment on the stormwater mitigation system and Stormwater Pollution Prevention Plan (SWPPP) and have provided the preliminary comments below:

- a. Soil testing has demonstrated adequate separation to underlying bedrock and or groundwater at all infiltration system locations with the exception of Infiltration Chamber #5. It appears, that in order to maintain the required three (3) foot separation, the elevation of the chambers is such that they would be installed largely in fill. This is not permitted in accordance with the NYS Stormwater Management Design Manual. The layout of this system shall be revised as needed.

**The applicant has revised the layout of the systems to provide the required minimum separation distance.**

- b. In general, all infiltration systems are configured such that the inlet connection is at the invert of the system, resulting in submerged inlet pipes for all storm events. The applicant should consider revising the inlet connection, so that it is located at the top of the unit.

**The inlet conditions have been revised as recommended.**

- c. The size of the overflow pipe serving Infiltration Chamber #1, as noted on Junction Box #1, and Level Spreader #1, shall be coordinated.

**The pipe sizes have been coordinated.**

- d. The plan shall illustrate the overflow connection to the level spreader for Infiltration Chamber #2.

**The applicant has proposed a continuous gravel bed to daylight to be installed alongside the length of the infiltration system to act as an overflow. The plans should include details and a section for this condition. This office is concerned that the connected gravel bed and overflow “level spreader” will promote a seepage condition.**

- e. The rim elevation noted for Junction Box #4 appears to be too low for the proposed grades and should be verified.

**The elevations have been revised and coordinated.**

- f. The size of the overflow pipe serving Infiltration Chamber #5, as noted on Junction Box #5 and Level Spreader #5, shall be coordinated.

**The elevations have been revised and coordinated.**

- g. The elevation of Infiltration Chamber #5 should be verified. As shown, the elevation of the top of the system is above the finished grade of the proposed tennis court. It appears that the entire storm system will be surcharged and not properly collect and drain stormwater runoff from the court. Please review and revise as needed.

**The locations and configuration of the infiltration systems serving this area has been revised to address the prior comment.**

- h. The plan shall illustrate the location of all inspection ports for each infiltration chamber system.

**The plan should be revised to provide inspection ports at each inlet connection point for long-term operation and maintenance.**

- 21. The plan proposes no curb along the drive serving the Caretaker's Quarters, allowing stormwater runoff to sheet flow across the septic fields. We recommend that the applicant consider providing curb along the drive and collecting runoff in the drain inlets proposed at the rear of the Caretaker's Quarters.

**The driveway layout has been revised and curbed to avoid additional sheet flow of stormwater runoff over the septic field.**

- 22. The Erosion and Sediment Control Plan shall clearly illustrate and quantify the limits of disturbance. We note that disturbances of greater than five (5) acres will require a phasing plan to demonstrate that no individual phase exceeds five (5) acres.

**The plan has been revised to indicate the disturbance areas as requested.**

- 23. The Erosion and Sediment Control Plan shall clearly state that the limits of the conservation easement shall be established in the field with orange construction fence prior to any land disturbance activities.



**This has been satisfied.**

24. The Erosion and Sediment Control Plan shall illustrate that all temporary silt fence is installed downgradient of all disturbed areas and parallel to the contours.

**The plan shall illustrate temporary silt fence to be installed parallel to the contours. As currently shown, flows will concentrate as they flow along the fence line and potentially result in failed protection measures. In addition, considering the level of disturbance proposed and the proximity to the lake, the erosion and sediment control measures appear minimal and only include silt fence and inlet protection. The applicant should consider additional measures including, but not limited to, temporary diversion swales and temporary sediment traps (sized in accordance with the NYSDDMDM), erosion blankets for slope protection, etc.**

25. The applicant has provided a SWPPP and draft Notice of Intent (NOI) for review, as required by Chapter 267, Stormwater Management of the Town Code and as required to obtain coverage under the NYSDEC General Permit, GP-0-20-001, for Stormwater Discharge from Construction Activity. We will reserve detailed comment until the stormwater comments noted above have been addressed and provide the following preliminary comment for consideration:

**The applicant has addressed some of the comment provided below and indicated that as the plan develops and is conceptually approved, additional detail will be provided. We suggest that we have a technical meeting with the applicant's engineer to discuss the points below in further detail.**

- a. The SWPPP shall clearly state the obligation to comply with Town Code Chapter 267, Stormwater Management of the Town Code, as well as the NYSDEC General Permit.
- b. The SWPPP should include a description of each of the drainage areas analyzed under existing and proposed conditions, describing the drainage area, land cover, proposed water quality treatment and stormwater attenuation measures.
- c. The SWPPP shall include a detailed construction sequence for the phased construction, limiting overall disturbance areas for each phase to no more than five (5) acres. The construction sequence shall also be provided on the plan.
- d. The SWPPP shall clearly indicate requirements for the Trained Contractor and Qualified Inspector, as required by the General Permit.

- e. The SWPPP shall indicate the entity responsible for operation and maintenance of the erosion and sediment controls and temporary and long-term stormwater management practices both during construction and after completion. We note that a long-term stormwater operation and maintenance agreement will be required as part of the filing of the Notice of Termination (NOT) with the NYSDEC. This agreement will be required to be recorded against the deed for the property.
  - f. The SWPPP includes an analysis of pre- and post-developed peak discharge flow rates indicating an increase for all storm events through the 100-year storm to Design Point A. The SWPPP makes reference to a downstream analysis as justification for an exemption to maintain existing peak rates of runoff, however, no such analysis has been provided.
  - g. The pre- and post-developed hydrologic models illustrate all subwatersheds discharging to Converse Lake. However, as shown on the Existing and Proposed Conditions Watershed Maps, there are four (4) distinct design points located around the perimeter of the property. The model shall be revised to provide a comparative analysis of peak discharge rates at each of the four (4) design points.
  - h. The SWPPP shall include hydrologic calculations for only the 10-yr storm with summaries for the 1-yr and 100-yr storm events. Please provide the supporting analysis for the 1-yr and 100-yr storms.**
  - i. It appears that the SWPPP provides the necessary water quality volume; however, a clarification of the deduction noted should be provided.**
26. The applicant has provided a draft NOI for review. We have provided the following preliminary comment:
27. **The applicant has acknowledged the need to address the comment provided below and stated that as the SWPPP develops, the additional information will be provided. We are amendable to this and suggest that as a result of the final SWPPP, the NOI be updated accordingly.**
- a. The Owner/Operator Information on Page 1 shall be completed in its entirety.
  - b. The disturbance areas in Question #4 shall be provided.
  - c. Question No. 12 shall be answered “yes” indicating that the site is located within a Class AA-S watershed and provide an answer for Question #13.

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June 10, 2021  
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- d. The answer to Question #14, regarding disturbance within a State wetland regulated area shall be confirmed and updated as needed.
- e. Provide answers to Question No. 37.
- f. The need for an Article 15, Protection of Waters Permit is to be confirmed for Question #40.

As additional information becomes available, we will continue our review. It is noted that an itemized response to all comments will facilitate completeness and efficiency of review.

**PLANS & REPORT REVIEWED, PREPARED BY D'ANDREA SURVEYING & ENGINEERING, P.C.:**

- Proposed Residence (Sheet 1), dated May 1, 2021
- Topographic Survey (Sheet 2), dated May 1, 2021
- Zoning Location Survey (Sheet 3), dated May 1, 2021
- Development Plan (Sheet 1 of 4), dated June 1, 2021
- Sedimentation and Erosion Controls (Sheet 2 of 4), dated June 1, 2021
- Notes & Details (Sheet 3 of 4), dated June 1, 2021
- Septic Design & Details (Sheet 4 of 4), dated June 1, 2021
- Average Grade Plan (Sheet 1 of 1), dated June 1, 2021
- Earthwork Calculations (Sheet 1 of 1), dated June 1, 2021
- Development Plan Showing Possible Subdivision for Caretaker's Quarters (Sheet 1 of 1), dated June 1, 2021
- *Stormwater Pollution Prevention Plan Report*, dated June 1, 2021

**PLANS REVIEWED, PREPARED BY JAY FAIN & ASSOCIATES, LLC, DATED JUNE 1 2021:**

- Site Plan (Sheet L-1)
- Site Plan Details (Sheet L-2)

JMC/dc