


MEMORANDUM

TO: North Castle Planning Board

CC: North Castle Conservation Board
Adam Kaufman, AICP
Nathaniel J. Holt, P.E.
Hugh Harris

FROM: John Kellard, P.E. 
Kellard Sessions Consulting
Consulting Town Engineers

DATE: Updated October 22, 2021

RE: Hugh Harris
9 Sterling Road North
Section 108.02, Block 1, Lot 58

As requested, Kellard Sessions Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is proposing a new pool, patio and legalization of constructed retaining walls. Associated improvements include construction of a stormwater mitigation system and relocation of the existing septic system to accommodate the proposed pool layout. The property is ± 2.0 acres in size and is located in the R-2A Zoning District.

Our comments are outlined below.

GENERAL COMMENTS (WITH OUR MOST RECENT COMMENTS IN BOLD)

1. The applicant has revised the plans based on previous site walks with the Planning Board and Conservation Board and meetings with the Conservation Board. Based on the mitigation plan, there is 15,352 s.f. of buffer disturbance proposed and 33,379 s.f. of buffer mitigation. This meets the 2:1 mitigation ratio required by the Town Code, which would require 30,704 s.f. of mitigation.

Memorandum from the North Castle Conservation Board, dated June 24, 2021, provides a Negative Recommendation of Approval to the Planning Board. The majority of the Conservation Board members determined that the project would have a negative impact on the wetland and local environment.

The applicant has submitted a Wetland Functional Assessment, which was prepared after the Conservation Board memorandum was prepared to your Board. While the assessment does not appear to provide any new information which was not already understood, the Board may want to consider referring the Assessment back to the Conservation Board and Wetland Consultant for their review and comments.

2. We note that entirety of the proposed pool and septic will be located within the wetland buffer.
3. The shape of the pool has been changed since the previous submission, where the pool remains 800 s.f., but the associated pervious pavers have been reduced in size from 1,935 s.f. to 1,573 s.f.

A portion of the pool patio may have changed to a trex deck. The applicant should clarify the changes to the plan since their last appearance before the Board.

4. The applicant shall quantify (s.f.) the size of the proposed rain gardens. We note that a detail for the rain gardens had been provided in the January submission for this project.

It appears the rain garden has been removed from the proposal, however, a detail of the rain garden is included with the landscape details. Perhaps the applicant can explain.

5. The plan includes wall at the pool and patio's edge, which ranges from 5' to 6' in height.

The walls appear to have been reduced to a four (4) foot height.

6. The applicant is proposing to replace the existing septic system with a new system; both the existing and proposed are located within the wetland buffer. If approved, the new system will be larger in size than the current system; however, due to recent Westchester County Health Department (WCHD) policy updates, the WCHD does not approve septic systems within the wetland buffer. We recommend the applicant meet with the WCHD for a determination regarding the ability to approve the system as proposed before proceeding with this project.

The applicant's Engineer accusations of inaccuracies and misinformation is not justified. This application has continually been changed and we have not always been updated of these changes. In regard to the septic system, please remember when the project was initially proposed, the existing septic system was portrayed as a functioning system which was to remain to service the residence. Later in the process, it was to be removed to make room for the new pool. After the WCHD changed its policy on septic systems within wetland setbacks, the existing system was determined to be in failure. WCHD Regulations are more lenient when a system is in failure and remediation is required.

We are obviously pleased the septic failure was uncovered and that the applicant will be proceeding immediately to correct the problem by installation of the new system. Please provide a copy of the WCHD Remediation Approval.

7. After meeting with the WCHD, the applicant should clarify the approval status of the proposed septic system.

Please submit the WCHD Septic Remediation Approval.

8. **Please clarify the depth of the junction box at the infiltration units, it appears to be 25 feet deep.**
9. **Also, please clarify how the runoff from the pool patio is treated. The patio elevation is shown below the elevation of the infiltrators.**
10. The retaining walls to the north of the driveway were constructed without prior approval. The applicant has provided as-built locations and heights of the walls. The site plans indicate the walls will be lowered to a maximum height of four (4) feet. However, it is unclear how this will be achieved. The walls, as constructed, will require certification by a NYS Licensed Professional Engineer.
11. The proposed limit of disturbance shall be illustrated and quantified on the plans and include all areas of proposed disturbance and development. The plan shall note that the limits will be staked in the field prior to construction.
12. The applicant is proposing a pump system to convey stormwater runoff from the pool backwash and patio area to an infiltration system located behind the newly constructed retaining wall. We recommend that the applicant consider an alternative gravity system located downgrade of the improvements. Doing so will alleviate future maintenance concerns and the introduction of additional stormwater behind the retaining wall. In addition, we note that only the top 25% of the infiltration systems can be installed in fill. This would require the infiltration system to be installed relatively deep in this instance. Given the proximity to the adjacent wetland area, suitable soils are unlikely. The applicant should consider using a rain garden, or other acceptable practice, to treat stormwater. This could then be incorporated into the anticipated wetland mitigation plantings. Deep and soil percolation tests must be completed by the applicant and witnessed by the Town Engineer. Pumping of the pool drawdown is acceptable, however, runoff from the patios should not be pumped.

13. There are existing gravel and woodchip stockpiles, associated with prior disturbance activities, located within the regulated wetland buffer and wetland proper. The plans shall include the removal of these materials and restoration of these areas. The restoration shall be included in the limit of disturbance and made part of the mitigation plan.

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 REVIEWED, PREPARED BY YOST DESIGN, LANDSCAPE ARCHITECTURE, DATED JULY 22, 2021:

- Planting Plan (Sheet L-701)
- Details Sheet (Sheet L-801)

PLANS REVIEWED, PREPARED BY NATHANIEL J. HOLT, P.E., DATED OCTOBER 10, 2021:

- Existing Conditions Plan (Sheet 1 of 6)
- Site Plan w/ Approved SSDS (Sheet 2 of 6)
- Proposed Coverage Plan (Sheet 3 of 6)
- Details (Sheet 4 of 6)
- Constraints Map (Sheet 5 of 6)
- Wetland/Wetland Mitigation Plan (Sheet 6 of 6)

JK/dc