


MEMORANDUM

TO: North Castle Planning Board

CC: North Castle Conservation Board
Adam Kaufman, AICP
Peter J. Gregory, P.E.
Christian Jungers & Michelle Starr

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

DATE: July 7, 2023
Updated December 11, 2023
Updated February 26, 2024

RE: Christian Jungers & Michelle Starr
14 Tallwoods Road
Section 107.02, Block 1, Lot 17

As requested, KSCJ Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is proposing to construct a new 18' x 38' inground swimming pool and pool patio. The project is proposed within the local wetland buffer and will include new impervious surface within 50 feet of a New York City Department of Environmental Protection (NYCDEP) regulated watercourse. The project will disturb approximately 5,600 s.f. of land area, 5,260 s.f. of wetland buffer and result in approximately 1,874 s.f. of new impervious surface. The application includes wetland and stormwater mitigation.

The application was referred to the Town Conservation Board for review and recommendation. During the Conservation Board review, the project had been revised by reducing the pool size, shifting the pool slightly uphill, eliminating the pool patio and reducing the height of the proposed retaining walls. Project disturbances have been reduced to 4,217 s.f., wetland buffer disturbance to 3,883 s.f. and 9,344 s.f. of wetland buffer mitigation provided.

GENERAL COMMENTS

1. The applicant is proposing land disturbance within 100 feet of a regulated local wetland. A local Wetland Permit may be required for the project. A wetland delineation was prepared by Mary Jaehnig on September 2, 2022. The delineation should be field-confirmed by the Town Wetland Consultant.

The wetland delineation prepared by Mary Jaehnig has been confirmed by the Town Wetland Consultant. Comment addressed.

2. The proposed project is projected to disturb 5,260 s.f. of wetland buffer. The applicant has prepared a Wetland Mitigation Plan, which includes 10,733 s.f. of wetland mitigation, 9,407 s.f. of invasive vegetation removal and 1,326 s.f. of mitigation plantings. A five (5) year wetland monitoring and maintenance plan has been outlined by the applicant.

The Planning Board may wish to refer the Mitigation Plan to the Town Wetland Consultant and Town Conservation Board for their review and recommendation.

The applicant should prepare a cost estimate which includes all costs to complete the proposed wetland mitigation, as well as the five (5) year monitoring and maintenance program. A Bond should be provided by the applicant to ensure the completion of each.

The application was referred to the Town Conservation Board for their review and recommendation of the project. During the Conservation Board review, the application was revised inclusive of the reduction in the size and relocation of the pool, reduction in disturbance, elimination of the pool patio and a proposed holding tank which will hold pool drawdown for irrigation use. During the November 21, 2023 Conservation Board Meeting, the Board recommended a positive referral of the revised project.

The applicant has prepared a Cost Estimate, which outlines the costs for the wetland mitigation for the project and the five (5) year monitoring of the mitigation. The applicant should revise the estimate to include the cost for the work of removing the invasive species. The applicant should post a Bond to assure the completion of the mitigation and monitoring.

The applicant has prepared a cost estimate for the wetland mitigation and post-construction monitoring in the amount of \$30,401.25. A performance bond should be posted for this amount. Upon completion of the work, a five (5) year maintenance bond in the amount of \$3,702.15 should remain. The applicant has also submitted a five (5) year wetland and monitoring plan, which we find acceptable for the project.

3. The applicant is proposing new impervious surfaces within 100 feet of a watercourse within the New York City Watershed. New impervious surfaces within 100 feet of a watercourse may require an Individual Residential Permit from the NYCDEP. The applicant should obtain a determination from the NYCDEP.

NYCDEP Letter from Matthew Giannetta, dated July 13, 2023, acknowledged that the pool is a non-commercial ancillary improvement to an individual residence, not requiring NYCDEP Approval. Comment addressed.

4. The proposed pool and pool patio are located along the top of the hillside within the rear of the existing residence. In an effort to minimize land disturbance, the applicant is proposing retaining walls along three (3) sides of the pool patio. The walls extend to a maximum height of 9.5 feet.

The relocation of the pool has resulted in the retaining wall heights to be reduced. The maximum height has been reduced to six (6) feet.

The applicant should provide construction details of the retaining walls, inclusive of design calculations for bearing, sliding and overturning. The plans should also note that the applicant shall retain the services of a Professional Engineer who will inspect the work and provide certification that the work is in conformance with the approved plans, prior to the issuance of a Certificate of Occupancy for the work.

Comment addressed.

5. The project is located in the Kensico Drainage Basin. Disturbance of over 5,000 s.f. will require conformance with NYSDEC General Permit GP-0-20-001 and filing of a Notice of Intent (NOI) and MS4 Acceptance Form with the NYSDEC. The applicant should submit the Stormwater Pollution Prevention Plan (SWPPP) to the Town Engineer for review.

The applicant has reduced the site disturbance below 5,000 s.f., thereby eliminating the requirement for filing with NYSDEC. Comment has been addressed.

6. Provide stormwater mitigation and design calculations for the runoff generated by the net increase in impervious surface for the 100-year, 24-hour design storm event. Provide details of the stormwater mitigation system.

The applicant is proposing a holding tank to accept pool drawdown, which will be utilized for irrigation. The applicant should provide details of how the water will be incorporated into the irrigation system.

The applicant is also proposing a rain garden to treat portions of the roof discharge. The applicant should provide stormwater mitigation and design calculations for the sizing of the rain garden.

The applicant has provided a detail of the rain garden, which should reflect the following elevations:

Bedrock	=	500.83
+ 3 ft. soil medium	=	503.83
+ .5 ft. drainage layer	=	504.33
+ .5 ft. soil layer	=	504.83
+ .5 ft. ponding	=	505.33
+ .5 ft. freeboard	=	505.83
+ .5 ft. top berm	=	506.33

The rain garden detail and proposed construction plan should be in agreement, confirming the rain garden can be constructed as proposed. Also, the drainage calculations should confirm that adequate volume is available to mitigate the runoff.

7. **The applicant shall perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. The test locations and results shall be shown on the plan. Please contact this office to schedule the testing.**

If stormwater mitigation is no longer proposed by infiltration, soil testing will no longer be required.

8. Provide rims, inverts, size and material for all proposed drainage facilities.

Comment addressed.

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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 DTS PROVIDENT, DATED FEBRUARY 12, 2024:

- Overall Site Plan (C-101)
- Construction Plan and Cross Sections (C-102)
- Erosion Control Details and Notes (C-103)
- Stormwater Details (C-104)

PLAN REVIEWED, PREPARED BY BENEDEK & TICEHURST, DATED FEBRUARY 9, 2024:

- Wetland Mitigation Plan (WL-1)

JK/dc

https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Northcastle/Corresp/018SitePlans/2024-02-26_NCPB_Jungers Starr - 14 Tallwoods Road_Review Memo.docx