

**MEMORANDUM**

**To** : Mr. Stephen Hunter, Planning Board Chairman  
Village of Dobbs Ferry

**From** : George E. Pommer, P.E.  
Consulting Engineer

**Dated** : December 30, 2021

**Subject** : Site Plan Review  
51 Beechdale Road  
Village of Dobbs Ferry, NY 10522

Below are the following responses to the previous Memorandum dated 12/8/21 from AI Engineers Dolph Rotfeld Engineering Division.

1. Supporting calculations must be provided to verify the stormwater system proposed on the site plan provided by James J. Hahn Engineering P.C.

Response: A HydroCad model has been used to verify the stormwater system. These calculations are attached to this submission.

2. The entire run of the proposed storm drain within the ROW must be shown, a street opening permit will be required as well as a maintenance agreement. The RIM, Invert, pipe capacity demonstrating capacity of the proposed pipe will be required. Pump sizing calculations should be submitted for review as well.

Response: The pipe in the ROW will be part of the Village stormwater system therefore; we do not believe a maintenance agreement is required. Our surveyor has not completed the survey of the roadway but we will provide rim and invert elevations on the plans to be submitted to the building department. As shown on the plan the pipe will have a minimum slope of 1% and be 12 inches in diameter. Maximum capacity is 4 cfs and the maximum flow from the site is 150 gpm or 0.33 cfs. We prefer not to relocate the catch basin along the roadway since it would only increase the flow and potentially clog with sediment if not maintained.

3. All Proposed retaining walls must show top and bottom wall elevations at any change in elevation. Any retaining wall over 4 feet will require engineered plans to be submitted and approved prior to building permit insurance.

Response: Proposed retaining walls will not be over 4 feet in height. Top and bottom wall elevations have been shown on the revised plans.

4. Percolation tests must be performed to establish the infiltration rates used in sizing the stormwater system. Test logs must be submitted for review demonstrating conformance with methodology used. The locations of the percolation tests must be shown on the plan. Percolation tests must be performed at a depth of 6" below the bottom of each proposed infiltration practice.

Response: The system is designed to accommodate the 100-year storm without infiltration. Infiltration is a secondary benefit to the function of the system. The front yard will have a control structure with a 2" orifice to drain the system down until it is empty. The backyard will have a pump that turns on when the elevation of the water in the structure reaches an elevation of 438.75 ft and will turn off if there is a water elevation of 437.0 ft or below present. Therefore, the system will be empty once the pump turns off.

5. Wherever infiltration practices are proposed test pits must be performed test pits must be performed to confirm soil type and to determine the elevation of ledge rock and groundwater conditions (minimum 3 feet below infiltration practices). Test pit locations must be shown on the plan. If the minimum 3-foot separation is not possible, alternative methods to infiltration must be considered.

Response: As mentioned above the infiltration rate is a secondary benefit. The stormwater system was designed to accommodate the 100-year storm without needing infiltration. The backyard stormwater system is being pumped dry; therefore, the pump will maintain a dry condition at all times. The pump will also have backup power in case of a power outage. In addition, the top of the proposed Cultec system will only be about 3 ft from the existing grade, therefore, it will be located mostly in fill, and rock and ground water are not a concern.

6. A concrete washout location, drain inlet protection, and corresponding details must be specified on the plan.

Response: The Locations and details for the above referenced items have been added to the revised plans on drawing C-3 Sheet 3 of 3.

7. The net increase/decrease of impervious coverage and the area of disturbance must be clearly noted and delineated on the plan

Response: Impervious coverage and area of disturbance has been noted on the revised plans. The impervious area before construction of the property was approximately 3,095 SF and the impervious coverage of the property after construction will be approximately 3,332 SF. The impervious coverage of the property will increase by approximately 237 SF due to the addition of an extra portion of driveway.

**Mr. Stephen Hunter, Planning Board Chairman**  
**Site Plan Review 51 Beechdale Road**  
**December 30, 2021**  
**Page 3**

8. Include cut and fill calculations and note on plans.

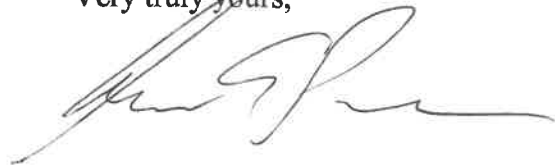
Response: Due to the nature of the topography most of the construction of the stormwater system will require the use of fill. The approximate amount of fill that will be needed is 12,378 CF. This has been noted on the plans.

9. A construction entrance must be indicated on the plan. The existing driveway may be specified for this purpose.

Response: The construction entrance that will be used with be the existing driveway. A construction entrance has been shown on drawing C-1 Sheet 1 of 3 of the revised plans.

If you have any questions or concerns, please do not hesitate to contact me at your earliest convenience.

Very truly yours,



George E. Pommer, P.E.  
Consulting Engineer

GEP:EG:MH

cc: Anthony Oliveri, P.E., [anthony@drepc.com](mailto:anthony@drepc.com)

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