

Dolph Rotfeld Engineering, P.C.

M E M O

TO: CHRISTOPHER BRADBURY
VILLAGE ADMINISTRATOR

FROM: Dolph Rotfeld, P.E.

**SUBJECT: North Ridge Street Residential Development
SUBDIVISION AND SITE PLAN APPLICATION**

DATE: December 6, 2016

With regard to the above mentioned project, this office has received and reviewed the following:

1. Memo prepared by Clark Neuringer Architect, dated October 25, 2016;
2. Stormwater Report prepared by Ralph G. Mastromonaco, P.E., P.C., dated November 2, 2016;
3. Plans prepared by Ralph G. Mastromonaco, P.E., P.C., dated November 1, 2016.

As per the Village of Rye Brook Zoning Code, Chapter 209, "Site Plan Review", and in review of the materials listed above please see below for issue(s) that will need response:

1. A computation for the area of disturbance proposed is not on the plan, however we understand that 0.98 acres is proposed to be disturbed. The limit of disturbance line seems impractical in some areas and does not include or extend to the proposed silt fencing. The area can and will likely as shown exceed the 1 acre threshold, requiring coverage under the NYSDEC General Permit for Stormwater discharges. As noted previously, the NYSDEC General Permit requires providing for Runoff Reduction Volume (RRv) as well as other criteria in the design.
2. The impervious areas listed under the existing and proposed conditions seem incorrect in that the offsite impervious areas do not seem to be included.
3. Details must be provided for both the CS1 and CS2 control structures including internal baffles, panels, orifices, weirs, etc.
4. Details of the proposed Stormtech chambers must include 12" of stone below and around the units as modelled in the HydroCAD report.
5. The HydroCAD report lists 16 Stormtech 740 chambers while the plan seems to show only 15.

6. The water Quality gallery is modelled in the report with a "user defined outlet" set at 0.02 cfs. This flow must be documented or justified in some way as the plan depicts a 6" outlet pipe which is not reflected in the model. Presumably this pipe would flow full when the limiting flow of the filters is exceeded.
7. The HydroCAD report models the overflow weir in "CS1" control structure as part of the water quality basin while other orifices are modeled as part of the CS1 structure; presumably the weir should also be modeled within the CS1 unit and routed appropriately.
8. An exfiltration value of 5"/hr was utilized for the drywells serving the proposed house on Lot 3; this rate must be verified with percolation testing in the field.
9. The HydroCAD model utilizes three 6" overflow devices from the proposed drywells on Lot 3, it is unclear how that is achieved; a detail must be provided.
10. The piped discharge and headwall from the proposed detention galleries is terminated at a high point of the slope, this should be extended down the slope and discharge much closer to the wetlands; this will prevent erosion of the steep slope area.
11. Cross-sections must be provided through both the water quality system and the detention system and must extend to include the tiered retaining walls. Existing and proposed grades must be shown on the cross-sections with stormwater system invert elevations.
12. It is unclear who will be responsible for maintaining the stormwater system including the monitoring of the filter cartridges, the cleaning of sumps and sediment traps, and watching for the accumulation of material in the Stormtech units. Please indicate who will be responsible for system upkeep and provide an operation and maintenance manual with schedule.
13. A discharge manhole for the sanitary sewer forcemain must be provided on the applicant's property (Lot 1) with the sanitary sewer service lateral continuing as a gravity connection to the Village's sanitary sewer system. Invert elevations, pipe sizes, material and slopes must be provided.
14. The full extent of Lot 3's proposed sanitary sewer service lateral must be provided on the plans with invert elevations.
15. The memo by Mr. Neuringer states that retaining wall heights have been reduced, "with one tier." However, the plan shows two tiers. Please clarify.
16. A photometric plan must be provided demonstrating that adequate lighting will be provided in common driveway and parking areas, as well as along pedestrian

paths. The photometric plan must also demonstrate that lighting intensities along property lines will not exceed one (1) foot-candle.

As stated in previous memos by this office, the following must be addressed:

It should be noted that no structural plans, details or calculations were submitted (or reviewed) for the retaining wall design as part of this application. Prior to the issuance of any permits the following must be provided for review:

- Cross-sections through the proposed tiered retaining wall which show existing and proposed grades, depths of wall footings, etc.
- All retaining wall design calculations and plans must be signed and sealed by a licensed New York State professional engineer.
- Subgrade bearing capacity requirements must be specified on the plans.
- Backfill and compaction requirements must be included on the plans.
- The completed installation must be certified by a licensed New York State professional engineer to be in conformance with the approved plans and must include test results certified by a NYS certified testing lab including but not limited to:
 - Subgrade bearing capacity
 - Backfill gradation
 - Compaction
- Vehicular protection along the top of the wall (i.e. guiderail).

Traffic-related elements of the site plan were not part of the review by this office.

Plans have not been reviewed by this office for zoning compliance.

Once revised plans have been received this office will be pleased to continue its review.