



Also Doing Business As (DBA):



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March 22, 2017

Kirk Rother, P.E.  
Consulting Engineer, PLLC  
5 Saint Stephens Lane  
Warwick, New York 10990

RE: Eden Woods  
SBL No. 20-1-3.3

Dear Mr. Rother:

We have completed our review of the revised construction plans (sheet No.'s 4, - 6) with the latest revision date of March 2, 2017 and the revised Stormwater Pollution Prevention Plan (SWPPP) dated April, 2016 and offer the following comments:

#### **Grading & Drainage Plan (Sheet No.4)**

1. Units 3, 4 and 29-34 must go back to the ARB for determination regarding foundation exposure on the back walls. The ARB approved the elevation views with a four (4) foot exposed concrete wall which the above units do not reflect.
2. Grades adjacent to unit No.'s 8, 10, 11, 12, 17, 18, 21, and 22 are steep. Similar grading created significant erosion issues on other projects. Unit No.'s 7, 9, 11 and 13 have runoff directed toward the foundations. Please review.
3. Excavation for foundations may begin but keep in mind the soil is frozen and may not be used as backfill material. Once the foundation is excavated construction means and methods must be used to protect the excavated bearing grade from moisture and freezing.
4. Frozen excavated material may be stockpiled for future use once completely thawed and dried to the optimum moisture content. Staff to verify fill material is not frozen prior to backfilling or grading.
5. You indicate in your letter dated March 2, 2017 you would like to use excavated material from the jail project and Landau Supermarket Improvements. We have the following comments:
  - a. Our initial visit to the site did indicate aggregate larger than 8" in the fill. We will review again on March 22, 2017.
  - b. Please provide a separation fabric over the stone fill prior to installing the subbase.
  - c. As indicated in the letter the Landau may only be used as general fill, which is areas outside the roadway and between homes. It should not be used as foundation backfill.
  - d. The fill may be stockpiled on site until site conditions will allow it to be placed and compacted at optimum ( $\pm 2\%$ ) moisture. Fill cannot be placed on frozen grade.

#### **Utility Plan (Sheet No.5)**

1. The slope from SMH3A to SMH3 should be 2.90%. Please revise both utility plan and profile.

It is our understanding that this project started the Design, Planning and Review process in 2008 and the SWPPP was therefore originally designed in accordance with the GP-0-08-001 general permit. However, due to the project's delay and subsequent modifications it has been determined that the SWPPP must be

prepared in accordance with New York State's most recent Stormwater Management Design Manual (Design Manual) and General Permit (GP-0-15-002) dated January 2015, respectively. Although the SWPPP was updated to reference both the current Design Manual and General Permit, it does not appear that the SWPPP report has been modified to be in conformance with these requirements. A review of the Grading and Drainage Plan (Sheet 4) identifies the use of green infrastructure practices on-site however, sizing calculations have not been provided. As such, we offer the following comments:

### **SWPPP**

1. In order to maintain compliance with the current General Permit and Design Manual, the SWPPP should provide a description of Green Infrastructure Planning and Practices as well as provide Runoff Reduction Volume (RRv) computations showing 100% treatment of the total required Water Quality Volume (WQv) using green infrastructure practice(s) (such as the proposed Biofilter Beds). If 100% treatment of the total required WQv cannot be provided, the minimum RRv must be achieved and an evaluation must be provided explaining how each of the available green infrastructure practices was considered and why they were not applicable to the property. As in other submittals, we recommend use of the NYSDEC RRv worksheets to show provided treatment computations.
2. The HydroCAD data in Appendix C indicates the property was modeled using a Type III type storm. A review of the property's location indicates the property should be modeled as a Type II storm. Please revise the calculations as such and reflect any changes within the SWPPP report and NOI.

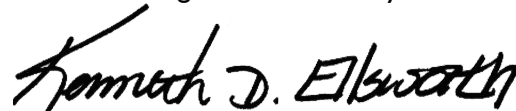
### **NOI**

1. Please adjust the NOI per the provided RRv calculations.

If you have any questions, please do not hesitate to contact our office.

Very truly yours,

Keystone Associates  
Architects, Engineers and Surveyors, LLC



Kenneth D. Ellsworth, P.E.  
Managing Member

TMO:

cc: Will Illing  
Mollie Messenger  
Paula Kay, Esq.  
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