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February 25, 2021

Township of Union
Land Use Board
140 Perryville Road
Hampton, New Jersey 08827

Attention: Grace Kocher (via e-mail plan@uniontwp-hcnj.org)

Reference: Preliminary and Final Site Plan, Major Subdivision and Variances
Plushanski Construction, LLC
Report #1 Completeness - Phase I Checklist- and
Phase II Checklist Recommendation
Block 22.02, Lots 3 & 4 – 37-39 Frontage Road
Union Township, Hunterdon County, New Jersey

Dear Ms. Kocher:

I reviewed the Phase I Geologic Report prepared by M2 Associates dated February 11, 2020 for Mr. Brian Plushanski.

It was a very thorough report and my recommendation is for the Board to deem the Phase I Checklist complete.

Conclusions item 5 on page 17 of the M2 report states that the site is not underlain by carbonate rock and that a Phase II is not warranted.

These particular rock formations at the site (Hensfoot and Jutland Klippe) contain a very limited amount of carbonate rock and consist mostly of shale, which is consistent with what was encountered in the test pits performed for the stormwater basin and observed in the bedrock outcrops that were produced when the site was quarried for shale.

Based on the findings presented in the report and the soils / bedrock that were encountered at the adjacent V.A. Spatz site, it is unlikely that this site is underlain by significant quantities of carbonate rock. Therefore, I agree that a Phase II Geologic Investigation is not warranted.

However, even though a Phase II Geologic Investigation is not recommended based on the data received, a qualified geologist or geotechnical engineer with carbonate geology experience should provide inspection of all geotechnical investigations (test borings or test pits), excavations for foundations, utilities, basins and stormwater structures prior to installation. Should carbonate rock be encountered during the geotechnical investigation or excavation during construction, a Phase II Geologic Investigation shall be conducted to determine the nature and extent of the carbonate rock and what type karst features are present. The applicant shall in accordance with § 30-6.9 notify the Township and provide in writing the details of the

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type of carbonate rock encountered and proposed remediation method(s) for the filling of any voids and/or sinkholes for approval prior to the continuance of construction.

Based on the above, I recommend the Board take the following action at their meeting on Thursday February 25, 2021:

1. Deem the Phase I Checklist application complete.
2. Grant a waiver from the Phase II Checklist requirements of the geologic investigation and report requirements based on the current data provided the following condition is met:
 - a) A qualified geologist or geotechnical engineer with carbonate geology experience shall provide inspection of all geotechnical investigations and excavations to determine whether carbonate rock is present.
3. Should carbonate rock be encountered the Township shall be notified and a Phase II Geologic Investigation shall be conducted to determine the nature and extent of the carbonate rock. Additionally, proposed remediation method(s) for the filling of voids and/or sinkholes shall be provided to the Township for approval prior to the continuance of construction.

Please distribute to the Board Members and let me know if there are any questions or if additional information is requested

Very truly yours,



Eric T. DeRicco, C.E.T.
Board Geologist/Hydrogeologist

cc – Distribution to:
Board Members (email)
Mark Anderson, Esq. (email)
Robert J. Clerico, P.E. (email)
Emily Goldman – Planner (email)
Joe Novak Esq., applicant's Attorney (email)
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