

February 9, 2024

Eve Tapper, Town Planner
Hanover Planning Board
Town Hall
550 Hanover Street
Hanover, MA 02339

**RE: Definitive Site Plan Review
Merchant's Row expansion, 2103 Washington Street
Hanover, Massachusetts**

Dear Ms. Tapper and Members of the Planning Board:

Attached please find a supplemental Stormwater Report for the above referenced project. In addition we offer the following responses to the review performed by CEI, dated January 18, 2024. Our response will follow the format presented in the CEI review and is presented in ***bold and italic*** type.

Stormwater Management Standards

Standard 1 – The proposed project provides infiltration chambers with pretreatment to provide treatment and attenuation to rainfall on site. Subbasins SC6 and SC5 are being discharged directly to the existing drainage infrastructure but contain no impervious area so therefore don't require treatment. Standard met.

No response needed.

Standard 2 – CEI recommends changing the CN value for portions of the pre-developed basin to better account for the existing trees/vegetation in the pervious area surrounding the lot. Standard is not met.

The Existing Conditions Hydrocad model has been adjusted to better represent the wooded area surrounding the property along the easterly property lines. The peak rates of runoff for the existing conditions are slightly reduced. The proposed conditions will continue to be below the existing conditions.

Standard 3 – To better account for the effect of groundwater on exfiltration at the site, consider using conductivity within the HydroCAD model instead of the constant velocity method. Standard is not met.

The Proposed Conditions Hydrocad model was adjusted using the conductivity method rather than the constant velocity. No adjustments are necessary in the system design.

Standard 4 – The proposed project has been designed using infiltration systems with a prior treatment train to remove TSS. Supporting calculations demonstrate a Total TSS removal of 92%. Standard met.

No response needed.

Standard 5 – The proposed project is considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) due to the fact that expected traffic is over 1,000 trips per day. The proposed treatment train

prior to the infiltration system removes 60% TSS removal and has been designed to treat 1.0 inch of runoff. Standard met.

No response needed.

Standard 6 – The proposed development does not discharge near any critical areas. Standard not applicable.

No response needed.

Standard 7 – The analysis for standards 2 and 3 should be revised per the previous comments to better reflect the existing conditions. Standard not met.

The drainage analysis has been adjusted to meet Standards 2 and 3. The proposed development's goal is to be in compliance with the DEP Stormwater Management Standards.

Standard 8 – A Construction Operation and Maintenance Plan and Construction Pollution and Prevention Plan have been provided. Standard is met.

No response needed.

Standard 9 – The Applicant has provided a Long-term Operation and Maintenance Plan for the Site. Standard is met.

No response needed.

Standard 10 – The Applicant has provided an Illicit Discharge Compliance Statement as part of the Stormwater Management Report. Standard is met.

No response needed.

General Comments

4. Please provide the map associated with the geotechnical investigation that shows where the test pits were taken.

A test pit map has been provided. The test pit locations are shown on the Existing Conditions Plan and the Grading and Drainage Plan although they are shown in a lighter gray color.

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

Very truly yours,

MERRILL ENGINEERS AND LAND SURVEYORS



Deborah W. Keller, P.E.
Director of Engineering

Cc: Matthew Lundsted, P.E., & Conor O'Sullivan, CEI
Frank Giglio, AGORA Marketplace, Applicant
File