



COMG-00002

November 14, 2022

Brenda Kraemer, PE
Township of Lawrence Engineering Department
2207 Lawrenceville Road
Lawrence Township, NJ 08648

**RE: Major Site Development Plans for CareOne at Lawrence
Township of Lawrence Zoning Board of Adjustment
Application #s: ZB-1/22 & SP-3/22
Stormwater Narrative for Public Hearing
Block 6601, Lot 2
Township of Lawrence, Mercer County, NJ**

Dear Ms. Kraemer:

In anticipation of the forthcoming Public Hearing on November 30, 2022, please let this letter serve as a narrative to clarify proposed stormwater management design intent for the above-referenced project. T&M intends to address the NJDEP Stormwater Management Regulations and Green Infrastructure Standards as follows:

- Though a large portion (i.e., 3.8 acres) of the project site drains in a westbound direction to the existing BMS property, the design intent is to reduce flows for all the proposed disturbance areas and convey all the proposed runoff to the southern end of project site via a new offsite 18" diameter outfall pipe within the Route 206 Right-of-Way (adjacent to the existing BMS property). The site will be designed to meet the stormwater quantity control requirements of 50%, 25% and 20% reductions for the 2-, 10- and 100-year storm events, respectively. Runoff will also be reduced to the BMS property from existing-to-proposed conditions.
- Quantity control, groundwater recharge, water quality, and green infrastructure will be addressed via a combination of three (3) types of proposed BMPs: (1) pervious pavement, (2) small-scale bioretention basins, and (3) grass swales. More specifically, pervious pavement is proposed within the parking stalls, two (2) small-scale bioretention basins are proposed at the southern end of the project area, and grass swales are proposed along the Route 206 Right-of-Way, draining in a north-to-south direction. All three (3) types of BMPs will be compliant with Chapter 9 of the BMP Manual (Green Infrastructure BMPs that may be used for groundwater recharge, stormwater runoff quality, and/or stormwater runoff Quantity).
- Groundwater recharge is a critical component to reducing runoff volume onsite and verifying compliance with Green Infrastructure. Preliminary soils testing across the site generally yielded mixed results. Positive infiltration test results were found on the southern end of the site, while negative permeability results were indicative elsewhere. In areas with negative infiltration results, we propose the replacement of the non-permeable soils

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with permeable soils down to the seasonal high groundwater table for some areas below the pervious pavement (as outlined in Chapter 12 of the NJDEP Stormwater Management BMP Manual).

- Some of the proposed BMPs are designed in series (e.g., pervious pavement and bioretention basin treatment train) in order to provide a greater water quality treatment than the 80% TSS removal requirement. This configuration overcompensates for some other drainage areas onsite that may not meet the water quality requirement.
- The proposed building roof drainage areas are exempt from the water quality requirement but still need to meet the quantity control and green infrastructure requirements. A majority of the roof drainage will be discharged into the stone bed under the pervious pavement and then recharged into the ground.
- The new offsite impervious areas associated with the Route 206 widening will be captured via the proposed linear grass swales, in accordance with NJDOT roadway design guidelines and the NJDEP BMP manual.
- Additional soils testing may be required adjacent to validate acceptable design permeability for the two (2) proposed small scale bioretention basins.

T&M will update the Site Plans and Stormwater Management Report to verify compliance with the bullets above (as required) and address the associated review comments from the Lawrence Township Engineering Department. If you have any questions or require additional clarification, please do not hesitate to contact me at 732-865-9471 or mthomas@tandmassociates.com.

Very Truly Yours,

T&M ASSOCIATES



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