



**TOWN OF SOUTH KINGSTOWN
DEPARTMENT OF PUBLIC SERVICES
MEMORANDUM**

TO: Jay Parker, Principal Planner

FROM: Mark Conboy, PE, Town Engineer

SUBJECT: Review of Conceptual Master/Preliminary Plan Submission
High Street Multi-Household Land Development Project

DATE: May 14, 2024

This memorandum summarizes initial review comments from the Department of Public Services (DPS) based on the most recent plan submission for the above referenced project including site plans dated 3/7/2024, "Drainage Analysis" dated 3/13/2024, and other associated documents.

Specific issues, concerns and considerations were identified during the review and are listed below:

Site Plans

1. The plans should include adequate areas for snow storage away from the existing stream, wetlands, bioretention area, and buffer zone planting areas.
2. The proposed buffer zone plantings do not match the plantings approved by RIDEM. There should be a contiguous row of (16) Northern White Cedars spaced 10' OC shown on the plans with notation stating the plantings must be allowed to develop naturally without being subjected to mowing or manicuring, as originally approved. Proposed Buffer Zone planting modifications will likely require approval by RIDEM.
3. The plans show additional grading and filling within the jurisdictional wetland buffer area along the west side of the property not approved by RIDEM.
4. The plans show site grade changes that will create a concentrated stormwater discharge point to the wetlands/stream area not shown on the plan approved by RIDEM. This drainage pattern modification will likely require approval by RIDEM.
5. The estimated seasonal high groundwater table (SHGT) depth onsite is 2.5'. Construction of utility services and footings may require a dewatering plan.
6. Electric service for proposed Building 2 should be shown on the Proposed Site Plan.
7. The riprap spillway for the Bioretention Area should be constructed as a permanent structure. Recommend constructing a concrete curb section inside the spillway at the design spillway elevation.
8. The Bioretention Area is proposed within the 100-year flood zone, however, the Ordinance specifically states that the placement of structural BMPs within a floodplain is a disallowed stormwater best management practice and shall be avoided. If there is no alternative, the applicant must show what effects the tail waters created by the floodplain will have on the outflow and effective storage capacity of the detention facility.

9. The proposed grading behind Building 2 will likely direct concentrated stormwater runoff from the Flatts Smokehouse roof drain leaders towards Building 2. Runoff should be directed away from the proposed building non-erosively.
10. The site plan shows the proposed Bioretention Area spillway to be constructed at elevation 22.5 but the Drainage Analysis lists the spillway at elevation 22.6. Which is correct?
11. An approved TSK Soil Erosion, Runoff and Sediment Control (SERSC) Permit Application shall be required prior to construction, excavation, or land disturbance.

Stormwater Drainage Analysis

1. The Pre-Watershed Map and analysis shows a Time of Concentration of 1.7 minutes used for stormwater modeling. The Time of Concentration should have been calculated at a higher value and must be at least 6 minutes due to modeling limitations.
2. The Pre-Watershed and Post-Watershed areas should be expanded and modeled to include the portion of the Flatts Smokehouse roof area which drains into the site.
3. The ground cover used in the Drainage Analysis for the Pre-Watershed was analyzed with a high CN based on the assumption that most of the site is or was a gravel road. The Pre-Watershed Map has most of the site shown as lawn area with a much smaller area shown as a gravel drive. A drainage analysis based on the Pre-Watershed Map information provided will generate lower runoff rates and volumes and will likely impact the overall drainage analysis.
4. The modeling of the Bioretention Area based on a 100-year storm event is inaccurate since the floodplain elevation is approximately 1' higher than the BMP spillway elevation (See Site Plans comment #8).

Long Term Operation & Maintenance Plan

1. The proposed O&M Plan should match O&M dated 12/20/2020 and approved by RIDEM.
2. The section pertaining to Permeable Paving should be omitted since permeable paving is not being proposed.
3. The Sample Stormwater Facility Maintenance Agreement should be updated and recorded prior to construction.

cc: Richard Bourbonnais, Director of Public Services
James D. Rabbitt, Town Planner